

Bipolar Transistors

T-31-01

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages			
						Collector-To-Base BV _{CEO} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V	
2SD822	Si	NPN	50	7		1500	600	5	<i>Application: TV Horizontal Deflection</i>
2SD822BULK	Si	NPN	50	7		1500	600	5	<i>Application: TV Horizontal Deflection</i>
SK3003A	Ge	PNP	0.2	-1		-30	-12	-5	<i>Application: Audio Small-Signal Amplification</i>
SK3004	Ge	PNP	1	-1		-32	-25	-12	<i>Application: AF Driver, Preamp, Power Output Stage</i>
SK3006	Ge	PNP	0.08	-0.01		-25	-18	-0.3	<i>Application: FM Broadcast Receiver; RF Amp/Mix/Osc/Converter</i>
SK3007A	Ge	PNP	1	-1		-32	-16	-10	<i>Application: AF Output Stage, Class A or B</i>
SK3008	Ge	PNP	0.08	-0.01		-34	-15	-0.5	<i>Application: AM Broadcast Band Applications</i>
SK3009	Ge	PNP	30	-10	-2	-60	-50	-10	<i>Application: General AF High-Power Applications</i>
SK3012	Ge	PNP	170	-30		-60	-45	-30	<i>Application: AF Power Applications</i>
SK3018	Si	NPN	0.3	0.05		20	12	2.5	<i>Application: RF Small-Signal Applications</i>
SK3020	Si	NPN	1	1		120 Min		7 Min	<i>Application: Small Signal, Medium Power Applications</i>
SK3021	Si	NPN	35	2		500	300	6	<i>Application: Class A Audio Amplification</i>
SK3024	Si	NPN	5	0.7	0.2		V _{CE0} = 90	4	<i>Application: Audio Driver/Output Stages</i> <i>Complementary Device Type: SK3025</i>
SK3025	Si	PNP	3	-0.7	-0.2		-90	-4	<i>Application: Audio Driver/Output Stages</i>
SK3026	Si	NPN	75	4	2	90	55	7	<i>Application: Audio Output Stages</i> <i>Complementary Device Type: SK3028</i>
SK3027	Si	NPN	115	15	7	100	60	7	<i>Application: Audio Output Stages</i> <i>Complementary Device Type: SK3173</i>
SK3028	Si	NPN	35	4		60	60	5	<i>Application: Audio Output Stages</i>
SK3029	Si	NPN	115	15		100	60	7	<i>Application: Audio Output Stages</i>

OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD					RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions				
Small Signal	Static								Power Output	Operating Frequency			
h_{ie}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	POUT Test W	Fo MHz			
20 Typ		3 Typ					0.5 Typ				T-043	2SD822	
$V_{CE} (V) = 5$ $I_C (A) = 1$													
20 Typ		3 Typ					0.5 Typ				T-043	2SD822BULK	
$V_{CE} (V) = 5$ $I_C (A) = 1$													
20 Min											T-008	SK3003A	
$V_{CE} (V) = -9$ $I_C (A) = -1$													
200 Typ		0.001									T-004	SK3004	
$V_{CE} (V) = -1$ $I_C (A) = -0.3$													
50		260									T-001	SK3006	
$V_{CE} (V) = -12$ $I_C (A) = -0.001$													
55-175		1.5									T-004	SK3007A	
$V_{CE} (V) =$ $I_C (A) = -0.005$													
50		45									T-004	SK3008	
$V_{CE} (V) = -12$ $I_C (A) = -0.001$													
100		0.60 Typ									T-043	SK3009	
$V_{CE} (V) = -2$ $I_C (A) = -0.5$													
105 Typ		0.1									T-037	SK3012	
$V_{CE} (V) = -2$ $I_C (A) = -5$													
90 Typ		1400 Typ									T-001	SK3018	
$V_{CE} (V) = 6$ $I_C (A) = 0.002$													
150 Max		125 Min	6 db								T-005	SK3020	
$V_{CE} (V) = 10$ $I_C (A) = 0.005$													
100 Max					3 Max	4 Max	3 Max				T-040	SK3021	
$V_{CE} (V) = 10$ $I_C (A) = 1$													
50-250		100 Typ									T-005	SK3024	
$V_{CE} (V) = 4$ $I_C (A) = 0.15$													
250 Max		100 Typ									T-005	SK3025	
$V_{CE} (V) = 4$ $I_C (A) = 0.15$													
150 Max		3									T-040	SK3026	
$V_{CE} (V) = 4$ $I_C (A) = 0.5$													
20-70		0.8									T-043	SK3027	
$V_{CE} (V) = 4$ $I_C (A) = 4$													
25-320		8									T-040	SK3028	
$V_{CE} (V) = 2$ $I_C (A) = 1$													
20-70											T-043	SK3029	
$V_{CE} (V) = 4$ $I_C (A) = 4$													

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS					
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages		
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V
SK3035	Ge	PNP	32	-10		-220		-1.5
			<i>Application: TV Horizontal Output Stages</i>					
SK3036	Si	NPN	150	20	5	100	60	7
			<i>Application: General Purpose Power Applications</i>					
SK3037	Si	NPN	150	20	5	100	60	7
			<i>Application: General Purpose Applications</i>					
SK3039	Si	NPN	0.2	0.05		30	15	3
			<i>Application: UHF TV Tuner Applications</i>					
SK3040	Si	NPN	1	0.1		280	200	6
			<i>Application: TV Video Output Stages</i>					
SK3044	Si	NPN	10	1		300 Min	300 Min	7 Min
			<i>Application: Gated AGC and Clamp Amplifier TV Applications</i>					
SK3045	Si	NPN	10	1		450	350	7
			<i>Application: TV Video, AF Output, and Voltage Regulator</i>					
SK3049	Si	NPN	10	2		60	60	4
			<i>Application: CB Transmitter Output Stages</i>					
SK3052	Ge	PNP	6	-2		-60	-60	-12
			<i>Application: AF Medium-Power Applications</i>					
SK3053	Si	PNP	10	-1		-350	300	-6
			<i>Application: High-Speed Switching and Linear Amplifiers</i>					
SK3054	Si	NPN	50	7	3	90	70	5
			<i>Application: General Purpose Audio, Medium-Power Switching</i> <i>Complementary Device Type: SK3083</i>					
SK3079	Si	NPN	117	10	7	160	140	7
			<i>Application: High Power</i>					
SK3082	Ge	PNP	12	-2		-35	-35	-6
			<i>Application: Medium-Power Output Stages</i> <i>Complementary Device Type: SK3086</i>					
SK3083	Si	PNP	40	-7	3	-80	-70	-5
			<i>Application: Audio and TV Deflection Amplifiers</i> <i>Complementary Device Type: SK3054</i>					
SK3085	Si	PNP	40	-6	-2	-85	-75	-5
			<i>Application: TV Vertical Deflection Systems</i>					
SK3086	Ge	PNP	12	-2		-35	-35	-6
			<i>Application: Medium-Power Output Stages</i>					
SK3103A	Si	NPN	10	1	0.5	450	350	7
			<i>Application: AF Power Output; TV Video Amplifier Stages</i> <i>Complementary Device Type: SK3528</i>					
SK3104A	Si	NPN	10	1	0.5	300	250	7
			<i>Application: TV Driver and Output Stages</i>					

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	Gp dB	P _{OUT} Test W	F _o MHz		
25		2.5									T-043	SK3035
V _{CE} (V) = -1.5												
I _C (A) = -4												
15-60		15									T-043	SK3036
V _{CE} (V) = 4												
I _C (A) = 10												
15-60											T-043	SK3037
V _{CE} (V) = 4												
I _C (A) = 10												
25-250		1400 Min	4.5 db Max					15 Min	450		T-001	SK3039
V _{CE} (V) = 5												
I _C (A) = 0.002												
55		120									T-005	SK3040
V _{CE} (V) = 10												
I _C (A) = 0.05												
40-160											T-005	SK3044
V _{CE} (V) = 10												
I _C (A) = 0.2												
40-160											T-007	SK3045
V _{CE} (V) = 10												
I _C (A) = 0.02												
10-140		300 Typ									T-007	SK3049
V _{CE} (V) = 5												
I _C (A) = 0.5												
100		0.45									T-040	SK3052
V _{CE} (V) = -1												
I _C (A) = -0.5												
30-120											T-005	SK3053
V _{CE} (V) = -10												
I _C (A) = -0.05												
20-100		0.8									T-036	SK3054
V _{CE} (V) = 4												
I _C (A) = 3.5												
20-70		1									T-043	SK3079
V _{CE} (V) = 4												
I _C (A) = 3												
50-275											T-042	SK3082
V _{CE} (V) = -1.5												
I _C (A) = -0.2												
30-150		10 Min									T-036	SK3083
V _{CE} (V) = -4												
I _C (A) = -2												
20-100		5 Min									T-040	SK3085
V _{CE} (V) = -4												
I _C (A) = -3												
110		0.45									T-042	SK3086
V _{CE} (V) = -1.5												
I _C (A) = -0.2												
40-160											T-005	SK3103A
V _{CE} (V) = 10												
I _C (A) = 0.02												
40-160											T-005	SK3104A
V _{CE} (V) = 10												
I _C (A) = 0.02												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages			
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V	
SK3111	Si	NPN	50	5		1500	600	5	<i>Application: TV Horizontal Output Stages</i>
SK3114A	Si	PNP	0.6	-0.5		-100	-80	-5	<i>Application: AF Power Amplifiers Complementary Device Type: SK3124A</i>
SK3115	Si	NPN	50	7		1500	600	5	<i>Application: TV Horizontal Output Stages</i>
SK3117	Si	NPN	0.2	0.05		30	15	3	<i>Application: RF/TV/VHF Applications</i>
SK3118	Si	PNP	0.5			-50	-40	-5	<i>Application: AM/FM RF Stages; TV IF Stages</i>
SK3122	Si	NPN	0.4	0.5		50	50	4	<i>Application: AM/FM Audio Stages Complementary Device Type: SK9132</i>
SK3123	Ge	PNP	7.5	-3		-60	-40	-20	<i>Application: AF Applications</i>
SK3124A	Si	NPN	0.6	0.5		100	80	5	<i>Application: AF Power Amplifiers Complementary Device Type: SK3114A</i>
SK3131A	Si	NPN	40	1	0.5	800	400	6	<i>Application: TV Driver and Deflection Stages</i>
SK3132	Si	NPN	0.65	0.05		50	45	4	<i>Application: TV Video Final IF Amplifier</i>
SK3133	Si	NPN	50	1		1500	550	5	<i>Application: TV Vertical Deflection Stages</i>
SK3137	Si	NPN	0.6	1		60	50	5	<i>Application: AF Medium Power Stages Complementary Device Type: SK3138</i>
SK3138	Si	PNP	0.6	-1		-60	-50	-5	<i>Application: AF Medium Power Stages Complementary Device Type: SK3137</i>
SK3173	Si	PNP	200	-20	-5	-120	-120	-5	<i>Application: AF High Power Applications Complementary Device Type: SK3027</i>
SK3176	Si	NPN	31	2.5		36	18	4	<i>Application: VHF RF Amplifier</i>
SK3177	Si	NPN	50	4		36	18	4	<i>Application: VHF RF Amplifier</i>
SK3178B	Si	NPN	10	1	0.1	100	100	5	<i>Application: AF Medium Power Applications Complementary Device Type: SK3179B</i>
SK3179B	Si	PNP	10	-2	0.1	-100	-100	-5	<i>Application: AF Medium Power Applications Complementary Device Type: SK3178B</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)				Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions				
Small Signal	Static								Power Output	Operating Frequency			
h_{ie}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	POUT Test W	Fo MHz			
20 Typ		3 Typ									T-043	SK3111	
$V_{CE} (V) = 5$													
$I_C (A) = 1$													
60-320		120									T-017	SK3114A	
$V_{CE} (V) = -5$													
$I_C (A) = -0.05$													
8-20		3 Typ									T-043	SK3115	
$V_{CE} (V) = 5$													
$I_C (A) = 1$													
50 Typ		900 Typ	6 db					21 Typ	200		T-001	SK3117	
$V_{CE} (V) = 1$													
$I_C (A) = 0.003$													
60-120		100 Min									T-020	SK3118	
$V_{CE} (V) = -2$													
$I_C (A) = 0.002$													
100-200		200									T-017	SK3122	
$V_{CE} (V) = 3$													
$I_C (A) = 0.01$													
80		1									T-009	SK3123	
$V_{CE} (V) = -2$													
$I_C (A) = -0.4$													
100-320		120									T-017	SK3124A	
$V_{CE} (V) = 5$													
$I_C (A) = 0.05$													
30 Min		7 Typ									T-040	SK3131A	
$V_{CE} (V) = 10$													
$I_C (A) = 0.2$													
20-100		500									T-023	SK3132	
$V_{CE} (V) = 10$													
$I_C (A) = 0.01$													
30		1									T-043	SK3133	
$V_{CE} (V) = 10$													
$I_C (A) = 0.1$													
120		200									T-024	SK3137	
$V_{CE} (V) = 10$													
$I_C (A) = 0.5$													
120		200									T-024	SK3138	
$V_{CE} (V) = -10$													
$I_C (A) = -0.5$													
25-150		2 Min									T-043	SK3173	
$V_{CE} (V) = -2$													
$I_C (A) = -5$													
5 Min								6.3	15	175	T-038	SK3176	
$V_{CE} (V) = 5$													
$I_C (A) = 0.5$													
5								6.2	25	175	T-038	SK3177	
$V_{CE} (V) = 5$													
$I_C (A) = 1$													
80-300		75-375									T-034	SK3178B	
$V_{CE} (V) = 1$													
$I_C (A) = 0.05$													
80-300		75-375									T-028	SK3179B	
$V_{CE} (V) = -1$													
$I_C (A) = -0.05$													

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS					
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages		
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V
SK3180	Si	NPN	65	10	0.25	80	80	5
			<i>Application: Darlington Amplifier</i>					
			<i>Complementary Device Type: SK3181A</i>					
SK3181A	Si	PNP	65	-10	-0.25	-80	-80	-5
			<i>Application: Darlington Amplifier</i>					
			<i>Complementary Device Type: SK3180</i>					
SK3182	Si	NPN	100	10	0.25	80	80	5
			<i>Application: Darlington Power Amplifier</i>					
			<i>Complementary Device Type: SK3183A</i>					
SK3183A	Si	PNP	70	-10	-0.25	-80	-80	-5
			<i>Application: Darlington Power Amplifier</i>					
			<i>Complementary Device Type: SK3182</i>					
SK3188A	Si	NPN	75	15	5	90	80	5
			<i>Application: AF High Power Applications</i>					
			<i>Complementary Device Type: SK3189A</i>					
SK3189A	Si	PNP	75	-15		-90	-80	-5
			<i>Application: AF High Power Applications</i>					
			<i>Complementary Device Type: SK3188A</i>					
SK3190	Si	NPN	60	4	1	60	60	5
			<i>Application: AF High Power Output Stages</i>					
			<i>Complementary Device Type: SK3191</i>					
SK3191	Si	PNP	40	-4	1	-60	-60	-5
			<i>Application: AF High Power Output Stages</i>					
			<i>Complementary Device Type: SK3190</i>					
SK3192	Si	NPN	12.5	3			60	5
			<i>Application: AF High Power Output Stages</i>					
			<i>Complementary Device Type: SK3193</i>					
SK3193	Si	PNP	12.5	-3			-60	-5
			<i>Application: AF High Power Output Stages</i>					
			<i>Complementary Device Type: SK3192</i>					
SK3194	Si	NPN	35	2	1	500	300	6
			<i>Application: TV Horizontal Output Stages</i>					
SK3195	Si	NPN	5	0.4		55	30	3.5
			<i>Application: RF Driver for VHF/UHF</i>					
SK3197	Si	NPN	20	6		70	70	4
			<i>Application: CB RF Output Stages</i>					
SK3198	Ge	PNP	6	-1		-32	-20	-10
			<i>Application: AF Power Output Applications</i>					
SK3199	Si	NPN	10	2		100	100	4
			<i>Application: AF Medium Power Applications</i>					
			<i>Complementary Device Type: SK3200</i>					
SK3200	Si	PNP	10	-2		-100	-100	-4
			<i>Application: AF Medium Power Applications</i>					
			<i>Complementary Device Type: SK3199</i>					
SK3201	Si	NPN	9	0.1	0.1		350	5
			<i>Application: AF Medium Power Applications</i>					
SK3202	Si	NPN	1.33	2	1		80	5
			<i>Application: AF Medium Power Output Stages</i>					
			<i>Complementary Device Type: SK3203</i>					

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	Gp dB	POUT Test W	Fo MHz		
1K-20K											T-036	SK3180
$V_{CE} (V) = 3$												
$I_C (A) = 5$												
1K-20K											T-036	SK3181A
$V_{CE} (V) = -3$												
$I_C (A) = -5$												
1K-20K											T-043	SK3182
$V_{CE} (V) = 3$												
$I_C (A) = 5$												
1K-20K											T-043	SK3183A
$V_{CE} (V) = -3$												
$I_C (A) = -5$												
20-150		5									T-036	SK3188A
$V_{CE} (V) = 4$												
$I_C (A) = 5$												
20-150											T-036	SK3189A
$V_{CE} (V) = -4$												
$I_C (A) = -5$												
25-100		2Min									T-045	SK3190
$V_{CE} (V) = 2$												
$I_C (A) = 1.5$												
25-100		2 Min									T-045	SK3191
$V_{CE} (V) = -2$												
$I_C (A) = -1.5$												
100-220		50 Typ									T-033	SK3192
$V_{CE} (V) = 1$												
$I_C (A) = 0.2$												
40-120		40 Typ									T-033	SK3193
$V_{CE} (V) = -1$												
$I_C (A) = -0.2$												
10-100		20									T-040	SK3194
$V_{CE} (V) = 2$												
$I_C (A) = 0.750$												
50	800								1	175	T-005	SK3195
$V_{CE} (V) =$												
$I_C (A) =$												
20-100		100 Min							16 Typ	50	T-036	SK3197
$V_{CE} (V) = 5$												
$I_C (A) = 4$												
80-320		0.015									T-041	SK3198
$V_{CE} (V) = 1$												
$I_C (A) = -0.5$												
60-110		175 Typ									T-029	SK3199
$V_{CE} (V) = 1$												
$I_C (A) = 0.05$												
60-140		100 Typ									T-029	SK3200
$V_{CE} (V) = -1$												
$I_C (A) = -0.05$												
60-180		50 Min									T-034	SK3201
$V_{CE} (V) = 10$												
$I_C (A) = 0.02$												
50 Min		230 Typ									T-034	SK3202
$V_{CE} (V) = 2$												
$I_C (A) = 0.1$												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages			
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CEO} V	Emitter-To-Base BV _{EB0} V	
SK3203	Si	PNP	6.25	-1			-75	-5	<i>Application: AF Medium Power Output Stages Complementary Device Type: SK3202</i>
SK3218	Si	NPN	2.5	0.4	0.4	40	20	3	<i>Application: CATV/MATV RF Line Amplifier</i>
SK3219	Si	NPN	4	1	0.6	400	300	5	<i>Application: Horizontal Driver, Vertical Output, Freq. Inverter</i>
SK3220	Si	NPN	40	1		500	400	5	<i>Application: Horizontal/Vertical Output; Line-Operated AF Amp.</i>
SK3232	Si	NPN	10	0.5		300	300	6	<i>Application: TV Video Output and Color Amplifier Stages Complementary Device Type: SK9351</i>
SK3239	Si	NPN	25	6		70	70	4	<i>Application: CB and Mobile Transmitter Output Stages</i>
SK3244	Si	NPN	0.8	0.05		200	150	5	<i>Application: TV Video Output; High Voltage AF Driver/Output</i>
SK3245	Si	NPN	0.5	0.1	0.02	60	60	5	<i>Application: AF Preamp and Driver Stages</i>
SK3246A	Si	NPN	0.625	0.05			40	5	<i>Application: CB and FM Broadcast Band Receiver RF/IF Stages</i>
SK3247	Si	PNP	0.3	-0.1		-55	-55	-5	<i>Application: AF Preamp</i>
SK3248	Si	NPN	10	3	0.6	40	30	5	<i>Application: AF Driver and Output; CB Modulator Output</i>
SK3250	Si	NPN	0.75	1	0.5	100	50	6	<i>Application: CB Transmitter Predriver/Driver and Audio Stages</i>
SK3251	Si	NPN	8	1.5 Peak	0.5	100	50	6	<i>Application: CB Transmitter Driver/Output Stages; Audio Amp</i>
SK3252	Si	NPN	8	1.5 Peak	0.5	100	50	6	<i>Application: CB Transmitter Driver/Output Stages; Audio Amp</i>
SK3253	Si	NPN	5	1		75	45	5	<i>Application: CB Transmitter Driver/Output Stages</i>
SK3259	Si	PNP	10	-3.5	1	-80	-65	-5	<i>Application: Audio Driver/Output Applications</i>
SK3260	Si	NPN	150	16	4	160	140	7	<i>Application: Audio Output Stages</i>
SK3261	Si	NPN	35	2	1	500	300	6	<i>Application: AF High Voltage Applications Complementary Device Type: SK3623</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)				Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions				
Small Signal	Static								Power Output	Operating Frequency			
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	G_p dB	POUT Test W	F_o MHz			
120-360		150 Typ		75 Typ		40 Typ					T-034	SK3203	
$V_{CE} (V) = -2$ $I_C (A) = -0.1$													
70-210		1200 Min	3 db					11		200	T-005	SK3218	
$V_{CE} (V) = 15$ $I_C (A) = 0.05$													
30-150		5 Min		2 Typ		0.5 Typ					T-036	SK3219	
$V_{CE} (V) = 10$ $I_C (A) = 0.3$													
30-150		5 Min		2 Typ		2 Typ					T-036	SK3220	
$V_{CE} (V) = 10$ $I_C (A) = 0.3$													
40 Min		60 Min									T-029	SK3232	
$V_{CE} (V) = 10$ $I_C (A) = 0.01$													
20-150		100 Min						6.3 Min	13	500	T-036	SK3239	
$V_{CE} (V) = 10$ $I_C (A) = 2$													
70-240		120 Typ									T-023	SK3244	
$V_{CE} (V) = 5$ $I_C (A) = 0.01$													
400-800		100 Typ									T-017	SK3245	
$V_{CE} (V) = 6$ $I_C (A) = 0.001$													
100 Typ		800 Typ									T-019	SK3246A	
$V_{CE} (V) = 5$ $I_C (A) = 0.010$													
250-500		200 Typ									T-017	SK3247	
$V_{CE} (V) = -12$ $I_C (A) = -0.002$													
80-250		60 Typ									T-032	SK3248	
$V_{CE} (V) = 5$ $I_C (A) = 1$													
199-451											T-022	SK3250	
$V_{CE} (V) = 2$ $I_C (A) = 0.1$													
199-316		180									T-030	SK3251	
$V_{CE} (V) = 2$ $I_C (A) = 0.1$													
199-316		180									T-031	SK3252	
$V_{CE} (V) = 2$ $I_C (A) = 0.1$													
100-320		250 Typ									T-045	SK3253	
$V_{CE} (V) = 5$ $I_C (A) = 0.5$													
25 Min		20-100									T-005	SK3259	
$V_{CE} (V) = -2$ $I_C (A) = -1$													
15-60		1									T-043	SK3260	
$V_{CE} (V) = 4$ $I_C (A) = 8$													
25-100		10									T-040	SK3261	
$V_{CE} (V) = 10$ $I_C (A) = 1$													

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P_T W	Collector Current Continuous I_C A	Base Current I_B A	Breakdown Voltages			
						Collector-To-Base BV_{CBO} V	Collector-To-Emitter BV_{CEO} V	Emitter-To-Base BV_{EBO} V	
SK3265	Si	NPN	5	0.7		60	40	5	<i>Application: AF Driver/Output Stages</i>
SK3270	Si	NPN	125	15	5	50	40	5	<i>Application: AF Output and Voltage Regulator Stages</i>
SK3274	Si	PNP	40	-7	-3	-60	-60	-5	<i>Application: AF Output Stages</i> <i>Complementary Device Type: SK3893</i>
SK3275	Si	NPN	0.6	0.6		160	140	6	<i>Application: AF and RF High Voltage Applications</i> <i>Complementary Device Type: SK3715</i>
SK3293	Si	NPN	0.25	0.05		30	15	5	<i>Application: AM/FM Broadcast Band RF/IF Stages</i>
SK3297	Si	NPN	100	12		160	140	6	<i>Application: Audio Hi-Fi Output Stages</i> <i>Complementary Device Type: SK3359</i>
SK3298	Si	NPN	4	1		75	35	4	<i>Application: CB Transmitter Driver Stages</i>
SK3299	Si	NPN	12.5	4		80	70	4.5	<i>Application: AM and CB Transmitter Output Stages</i>
SK3356	Si	NPN	0.36	0.5		40	30	5	<i>Application: AM/FM Broadcast and CB Receivers</i>
SK3357	Si	NPN	10	3	0.6	50	40	5	<i>Application: AF Output and CB Modulator Stages</i> <i>Complementary Device Type: SK9076</i>
SK3359	Si	PNP	100	-12		-160	-140	-6	<i>Application: Audio Power Amplifiers</i> <i>Complementary Device Type: SK3297</i>
SK3360	Si	NPN	100	12		150	150	5	<i>Application: Audio Hi-Fi Output Stages</i>
SK3433	Si	NPN	0.625	0.5	0.25	300	300	6	<i>Application: General Purpose High-Voltage Amplifier</i> <i>Complementary Device Type: SK3434</i>
SK3434	Si	PNP	0.625	-0.5	-0.25	-300	-300	-5	<i>Application: General Purpose High-Voltage Amplifier</i> <i>Complementary Device Type: SK3433</i>
SK3438	Si	NPN	125	8	4	500	250	8	<i>Application: TV Vertical Deflection Stages</i>
SK3439A	Si	NPN	125	8	4	700	350	8	<i>Application: TV Horizontal Deflection</i>
SK3440	Si	NPN	40	4	2	130	120	5	<i>Application: AF Power Amplifier Stages</i> <i>Complementary Device Type: SK3441</i>
SK3441	Si	PNP	40	-4	-2	-130	-120	-5	<i>Application: AF Power Amplifier Stages</i> <i>Complementary Device Type: SK3440</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								ft	NF	t_d	t_r
h_{fe}	h_{FE}	MHz		μS	μS	μS	μS	Gp dB	POUT Test W	Fo MHz		
25 Min											T-005	SK3265
$V_{CE} (V) = 2.5$												
$I_C (A) = 0.15$												
20-150		10									T-043	SK3270
$V_{CE} (V) = 4$												
$I_C (A) = 5$												
30-150		10 min									T-036	SK3274
$V_{CE} (V) = -4$												
$I_C (A) = -2.5$												
60-250											T-021	SK3275
$V_{CE} (V) = 5$												
$I_C (A) = 0.01$												
40-180		1100 typ									T-017	SK3293
$V_{CE} (V) = 10$												
$I_C (A) = 0.005$												
100-200		15 Typ									T-043	SK3297
$V_{CE} (V) = 5$												
$I_C (A) = 5$												
10-300									1.4 Typ	27	T-035	SK3298
$V_{CE} (V) = 10$												
$I_C (A) = 0.1$												
150									3	27	T-006	SK3299
$V_{CE} (V) = 10$												
$I_C (A) = 0.1$												
100		200									T-017	SK3356
$V_{CE} (V) = 10$												
$I_C (A) = 0.15$												
80-220		150 Typ									T039	SK3357
$V_{CE} (V) = 5$												
$I_C (A) = 1$												
100-200		15 Typ									T-043	SK3359
$V_{CE} (V) = -5$												
$I_C (A) = -2$												
70-140		15 Typ									T-043	SK3360
$V_{CE} (V) = 5$												
$I_C (A) = 1$												
45-270		40-200		$t_{on} = 0.2$		$t_{off} = 3.5$					T-021	SK3433
$V_{CE} (V) = 10$												
$I_C (A) = 0.03$												
45-270		40-200		$t_{on} = 0.2$		$t_{off} = 3.5$					T-021	SK3434
$V_{CE} (V) = -10$												
$I_C (A) = -0.03$												
15-75					0.6 Max	1.6 Max	0.4 Max				T-043	SK3438
$V_{CE} (V) = 5$												
$I_C (A) = 3$												
12-60					0.6 Max	1.6 Max	0.4 Max				T-043	SK3439A
$V_{CE} (V) = 5$												
$I_C (A) = 3$												
15-150		10 Min									T-036	SK3440
$V_{CE} (V) = 4$												
$I_C (A) = 1.5$												
15-150		10 Min									T-036	SK3441
$V_{CE} (V) = -4$												
$I_C (A) = -1.5$												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages			
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V	
SK3444	Si	NPN	1.8	0.8		75	40	6	<i>Application: General Purpose AF/RF Small Signal Amplification'</i>
SK3449	Si	NPN	0.8	0.4		80	80	5	<i>Application: Audio Driver and Output Stages Complementary Device Type: SK3450</i>
SK3450	Si	PNP	0.8	-0.4		-80	-80	-5	<i>Application: Audio Driver and Output Stages Complementary Device Type: SK3449</i>
SK3452	Si	NPN	1	0.1		30	20	3	<i>Application: AM/FM/TV RF/IF Video Amp, UHF Oscillator, VHF Tuner</i>
SK3464	Si	NPN	7	1.5		50	40	5	<i>Application: CB AF Power Amplifier</i>
SK3466	Si	PNP	1.5	-1		-80	-80	-5	<i>Application: AF Preamplifier/Driver Complementary Device Type: SK3479</i>
SK3467	Si	NPN	100	15	3	800	325	8	<i>Application: TV Horizontal Deflection, High-Voltage Switching</i>
SK3479	Si	NPN	1.5	0.5		80	80	5	<i>Application: Medium Power Drivers or Low Power Output Stages Complementary Device Type: SK3466</i>
SK3512	Si	NPN	10	2	1	100	90	7	<i>Application: High Speed Inverter/Switch/Amplifier Complementary Device Type: SK3513</i>
SK3513	Si	PNP	10	-2	-1	-100	-90	-7	<i>Application: Inverter/Driver/Amplifier Complementary Device Type: SK3512</i>
SK3528	Si	PNP	10	-1	-0.5	-350	-300	-6	<i>Application: Linear Amplification and High-Speed Switching Complementary Device Type: SK3103A</i>
SK3529	Si	NPN	5	2		60	V _{CE5} = 55	5	<i>Application: High-Voltage Switching</i>
SK3538	Si	NPN	25	3	2	160	140	7	<i>Application: AF and Switching Stages</i>
SK3559	Si	NPN	175	10	10	450	350	6	<i>Application: TV Vertical Deflection, Industrial Power Switching</i>
SK3562	Si	NPN	35	7	5	120	75	7	<i>Application: Medium Power Switching</i>
SK3619	Si	NPN	140	30	10	150	120	7	<i>Application: Power Switching and Control, Inverters & Converters</i>
SK3620	Si	NPN	75	15	5	90	80	5	<i>Application: AF Output and Power Switching Stages</i>
SK3621	Si	NPN	140	10	5	150	120	6.5	<i>Application: AF/Power Switching: regulators, Converters, Inverters</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (if Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (if Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	Gp dB	POUT Test W	Fo MHz		
100-300											T-008	SK3444
V _{CE} (V) = 10												
I _C (A) = 0.15												
120-240		100 Typ									T-023	SK3449
V _{CE} (V) = 2												
I _C (A) = 0.05												
120-240		100 Typ									T-023	SK3450
V _{CE} (V) = -2												
I _C (A) = -0.05												
75 Typ		800 Typ									T-021	SK3452
V _{CE} (V) = 10												
I _C (A) = 0.002												
55-180											T-035	SK3464
V _{CE} (V) = 4												
I _C (A) = 0.5												
50-250		100-500	3	$t_{on} = 0.1$		$t_{off} = 0.4$					T-021	SK3466
V _{CE} (V) = -10												
I _C (A) = -0.01												
15 Min		6 Typ					1 Max				T-043	SK3467
V _{CE} (V) = 10												
I _C (A) = 2.5												
50 Min		100 Min		0.015	0.030	0.50	0.060				T-021	SK3479
V _{CE} (V) = 1												
I _C (A) = 0.1												
30-130				$t_{on} = 0.08$		$t_{off} = 0.8$					T-005	SK3512
V _{CE} (V) = 4												
I _C (A) = 0.5												
30-130				$t_{on} = 0.1$		$t_{off} = 1$					T-005	SK3513
V _{CE} (V) = -4												
I _C (A) = -0.5												
30-120											T-005	SK3528
V _{CE} (V) = -10												
I _C (A) = -0.05												
50		350									T-005	SK3529
V _{CE} (V) = 1												
I _C (A) = 0.5												
25-100		0.8									T-040	SK3538
V _{CE} (V) = 4												
I _C (A) = 0.5												
6-50					2 Max	3.5 Max	1 Max				T-043	SK3559
V _{CE} (V) = 3												
I _C (A) = 10												
20 Min				0.04 Max	0.4 Max	0.8 Max	0.4 Max				T-040	SK3562
V _{CE} (V) = 5												
I _C (A) = 4												
20-100		50 Min		$t_{on} = 0.5$		1.5 Max	0.5 Max				T-043	SK3619
V _{CE} (V) = 2												
I _C (A) = 15												
20-150											T-036	SK3620
V _{CE} (V) = 4												
I _C (A) = 5												
20-150					0.3	1	0.2				T-043	SK3621
V _{CE} (V) = 2												
I _C (A) = 5												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS					
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages		
						Collector-To-Base BV _{CEO} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V
SK3623	Si	PNP	35	-2	-1	-450	-400	-6
			<i>Application: AF/Power Switching: regulators, Converters, Inverters</i>					
			<i>Complementary Device Type: SK3261</i>					
SK3625	Si	PNP	40	-4	-2	-130	-120	-5
			<i>Application: AF/Power Switching</i>					
			<i>Complementary Device Type: SK3626</i>					
SK3626	Si	NPN	40	4	2	130	120	5
			<i>Application: AF/Power Switching</i>					
			<i>Complementary Device Type: SK3625</i>					
SK3642	Ge	PNP	106	-25	-5	-90	-100	-2
			<i>Application: Power Switching</i>					
SK3710	Si	NPN	50	6		1500	600	7
			<i>Application: TV Horizontal Deflection</i>					
SK3715	Si	PNP	1	-0.6		-160	-150	-5
			<i>Application: AF Driver & Output Stages, FM-Band Receiver Ckts</i>					
			<i>Complementary Device Type: SK3275</i>					
SK3716A	Si	NPN	0.25	0.025		30	15	2.5
			<i>Application: Wide Band, Low Noise VHF/UHF Amplifier</i>					
SK3717	Ge	PNP	90	-10		-70	V _{CEB} = -50	-30
			<i>Application: AF Power Output</i>					
SK3718	Ge	PNP	90	-10		-70	V _{CEB} = -50	-30
			<i>Application: High-Fidelity Audio Output Stages</i>					
SK3719	Ge	PNP	90	-7		-50	V _{CEB} = -35	-20
			<i>Application: AF Power Output Stages</i>					
SK3720	Ge	PNP	90	-7		-50	V _{CEB} = -35	-20
			<i>Application: High-Fidelity Audio Amplifier Stages</i>					
SK3721	Ge	PNP	0.15	-0.3		-25	-20	-20
			<i>Application: RF/IF Amplifier/Oscillator/Mixer, AM Brdcast Band</i>					
			<i>Complementary Device Type: SK3861</i>					
SK3722	Ge	PNP	0.15	-0.3		-30	-20	-20
			<i>Application: AF Driver, Preamp, Power Amp Stages, AM Brdcast Band</i>					
			<i>Complementary Device Type: SK3862</i>					
SK3747	Si	NPN	20.8	0.5			300	3
			<i>Application: Power Output Stages in TV, Radio, Phonograph</i>					
			<i>Complementary Device Type: SK9260</i>					
SK3764	Ge	PNP	56	-10	+4, -1	-320	-320 = V _{CEB}	-2
			<i>Application: TV Horizontal and Vertical Deflection</i>					
SK3835	Ge	NPN	1	1		25	15	10
			<i>Application: AF Driver, Preamp, Power Output Stages</i>					
SK3836	Si	NPN	150	15		180	180	5
			<i>Application: AF Power Output Stages</i>					
			<i>Complementary Device Type: SK3846</i>					
SK3839	Ge	NPN	4	1		32	20	10
			<i>Application: AF Power Output Sta ges</i>					

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	Power Test W	Fo MHz		
10-100					0.6	2.5	0.6				T-040	SK3623
$V_{CE}(V) = -5$ $I_C(A) = -1$												
15-150											T-040	SK3625
$V_{CE}(V) = -4$ $I_C(A) = -1.5$												
15-150											T-040	SK3626
$V_{CE}(V) = 4$ $I_C(A) = 1.5$												
25 Min		0.43 Typ		$t_{on} = 11$		$t_{off} = 21$					T-043	SK3642
$V_{CE}(V) = -2$ $I_C(A) = -8$												
5 Min											T-043	SK3710
$V_{CE}(V) = 5$ $I_C(A) = 5$												
50 Min		100-300	8 db Max								T-021	SK3715
$V_{CE}(V) = -5$ $I_C(A) = -0.05$												
25-150		1400						23 Typ	0.012	200	T-001	SK3716A
$V_{CE}(V) = 1$ $I_C(A) = 0.025$												
80 Typ		0.5									T-043	SK3717
$V_{CE}(V) = -2$ $I_C(A) = -3$												
80 Typ		0.5									T-043	SK3718
$V_{CE}(V) = -2$ $I_C(A) = -3$												
80 Typ		0.3									T-043	SK3719
$V_{CE}(V) = -2$ $I_C(A) = 0.3$												
80 Typ		0.3									T-043	SK3720
$V_{CE}(V) = -2$ $I_C(A) = -3$												
110		10									T-005	SK3721
$V_{CE}(V) = -1$ $I_C(A) = -0.01$												
100 Typ		10									T-005	SK3722
$V_{CE}(V) = -1$ $I_C(A) = -0.01$												
30-240											T-045	SK3747
$V_{CE}(V) = 10$ $I_C(A) = 0.05$												
60 Typ		2									T-043	SK3764
$V_{CE}(V) = -3$ $I_C(A) = -6$												
100-500		5 Typ									T-004	SK3835
$V_{CE}(V) = 1$ $I_C(A) = 0.3$												
70-140		5 Typ									T-043	SK3836
$V_{CE}(V) = 5$ $I_C(A) = 2$												
80-320		3 Typ									T-041	SK3839
$V_{CE}(V) = 1$ $I_C(A) = 0.5$												



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TCE Type	Device Material & Polarity		MAXIMUM RATINGS					
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages		
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CEO} V	Emitter-To-Base BV _{EB0} V
SK3840	Ge	PNP	6	-3	-0.3	-32	-20	-10
<i>Application: AF Power Output Stages</i>								
SK3841	Si	PNP	1	-1		-60	-50	-5
<i>Application: AF Power Amplifier Stages Complementary Device Type: SK3849</i>								
SK3842	Si	NPN	0.8	1		75	35	4
<i>Application: CB RF Power Amplifier Stages</i>								
SK3844	Si	NPN	15	1.5		1600	700	5
<i>Application: TV Deflection Circuits</i>								
SK3845	Ge	PNP	6	-2		-25	-25 BV _{CEB}	-6
<i>Application: AF Power Amplifier Stages</i>								
SK3846	Si	PNP	200	-10		-200	-200	-5
<i>Application: AF Power Output Stages Complementary Device Type: SK3836</i>								
SK3847	Si	NPN	12	2		120	90 BV _{CEB}	5
<i>Application: CB Transmitter Power Amplifier Stages</i>								
SK3849	Si	NPN	1	1		60	50	5
<i>Application: AF Power Amplifier Stages Complementary Device Type: SK3841</i>								
SK3854	Si	NPN	1.2	0.8		75	40	6
<i>Application: AF/RF General Purpose Small-Signal Amplifier Complementary Device Type: SK3466</i>								
SK3858	Si	NPN	160	20	0.5	100	100	5
<i>Application: General Amplification Complementary Device Type: SK3859</i>								
SK3859	Si	PNP	160	-20	-0.5	-100	-100	-5
<i>Application: General Purpose Darlington Amplifier Stages Complementary Device Type: SK3858</i>								
SK3860	Si	NPN	6.25	0.5		50	50	13
<i>Application: General Purpose Darlington Amplifier Stages</i>								
SK3861	Ge	NPN	0.15	0.3		25 Min		25 Min
<i>Application: AF Low Power Amplifier Stages Complementary Device Type: SK3721</i>								
SK3862	Ge	NPN	0.15	0.3		25 Max		25 Max
<i>Application: AF Low Power Amplifier Stages Complementary Device Type: SK3722</i>								
SK3865A	Si	NPN	2	0.5		300	225	7
<i>Application: TV Vertical and Horizontal Driver; AF Driver Stage</i>								
SK3866A	Si	NPN	0.9	1		160	160	6
<i>Application: AF Pre-Driver, TV Audio Output Stages Complementary Device Type: SK3867A</i>								
SK3867A	Si	PNP	0.9	-1		-160	-160	-6
<i>Application: AF Pre-Driver, TV Audio Output Stages Complementary Device Type: SK3866A</i>								
SK3893	Si	NPN	50	7	3	60	40	5
<i>Application: AF Amplifier and Medium-Power Switching Complementary Device Type: SK3274</i>								

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (if Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (if Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	G_p dB	Power Output W	Operating Frequency Fo MHz		
80-320		1.5 Typ									T-041	SK3840
V _{CE} (V) = -1												
I _C (A) = -0.5												
120 Min		200 Typ									T-017	SK3841
V _{CE} (V) = -10												
I _C (A) = -0.1												
35-300								13	0.45 Typ	27	T-015	SK3842
V _{CE} (V) = 10												
I _C (A) = 0.1												
2 Min											T-040	SK3844
V _{CE} (V) = 5												
I _C (A) = 1												
90-220		0.7									T-005	SK3845
V _{CE} (V) = -1.5												
I _C (A) = -0.2												
60-200		14 Typ									T-043	SK3846
V _{CE} (V) = -5												
I _C (A) = -2												
50-200		150 Typ							4.2	27	T-005	SK3847
V _{CE} (V) = 5												
I _C (A) = 1												
120-340		200 Typ									T-023	SK3849
V _{CE} (V) = 10												
I _C (A) = 0.5												
100-300			300 Min	0.010	0.025	0.225	0.060				T-021	SK3854
V _{CE} (V) = 10												
I _C (A) = 0.15												
300 Min		750-18K									T-043	SK3858
V _{CE} (V) = 3												
I _C (A) = 10												
300 Min		750-18K									T-043	SK3859
V _{CE} (V) = -3												
I _C (A) = -10												
10K Typ		75 Typ				350,000	800,000				T-034	SK3860
V _{CE} (V) = 5												
I _C (A) = 0.02												
40-200		10	4db Typ								T-005	SK3861
V _{CE} (V) = 1												
I _C (A) = 0.01												
60-300		10									T-005	SK3862
V _{CE} (V) = 1												
I _C (A) = 0.01												
40 Min		50 Min									T-034	SK3865A
V _{CE} (V) = 10												
I _C (A) = 0.080												
100-200		20 Min									T-023	SK3866A
V _{CE} (V) = 5												
I _C (A) = 0.2												
100-200		15 Min									T-023	SK3867A
V _{CE} (V) = -5												
I _C (A) = -0.2												
20-100		0.8 Min									T-036	SK3893
V _{CE} (V) = 4												
I _C (A) = 3												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages			
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V	
SK3894	Si	NPN	45	7	4	375	350	9	<i>Application: High-Voltage, High-Power Linear Amplifier/Switch</i>
SK3895	Si	NPN	140	15	5	150	110	7	<i>Application: Power Amplification and High Speed Switching</i>
SK3896	Si	NPN	65	8	0.25	100	100	5	<i>Application: Power Amplifier Circuits Complementary Device Type: SK3897</i>
SK3897	Si	PNP	65	-8	-0.25	-100	-100	-5	<i>Application: Power Amplifier Circuits Complementary Device Type: SK3896</i>
SK3899	Si	NPN	0.2	0.1		55	50	5	<i>Application: Low-Noise Preamplifier with High Current Gain</i>
SK3911	Si	NPN	0.6	0.5		60	50	7	<i>Application: Medium-Power Circuits in TV, CB, VCR Complementary Device Type: SK3912</i>
SK3912	Si	PNP	0.6	-0.5		-60	-50	-7	<i>Application: Medium-Power Circuits in TV, CB, VCR Complementary Device Type: SK3911</i>
SK3913	Si	NPN	40	6	3	100	80	6	<i>Application: Power Supply Circuits with Very High Current Gain</i>
SK3929	Si	NPN	30	2	1	200	200	6	<i>Application: Medium-Power Driver and Output Stages Complementary Device Type: SK3930</i>
SK3930	Si	PNP	30	-2	-1	-200	-200	-6	<i>Application: Medium-Power Driver and Output Stages Complementary Device Type: SK3929</i>
SK3931	Si	NPN	0.75	0.05		120	120	5	<i>Application: AF/RF High-Voltage Stages Complementary Device Type: SK3932</i>
SK3932	Si	PNP	0.75	-0.05		-120	-120	-5	<i>Application: AF/RF High-Voltage Stages Complementary Device Type: SK3931</i>
SK3935	Si	NPN	125	10	0.5	100	100	5	<i>Application: Darlington Amplifier Stages Complementary Device Type: SK3936</i>
SK3936	Si	PNP	125	-10	-0.5	-100	-100	-5	<i>Application: Darlington Amplifier Stages Complementary Device Type: SK3935</i>
SK3945	Si	NPN	200	25	10	180 VCB	150	6	<i>Application: Power Amplifier and Switching Circuits</i>
SK3946	Si	NPN	150	10	5	350		6	<i>Application: High-Speed Power Switching</i>
SK3947	Si	NPN	250	16	5	400	250	7	<i>Application: High-Power Audio Circuits Complementary Device Type: SK3948</i>
SK3948	Si	NPN	150	12	0.2	100	100	5	<i>Application: Darlington Power Amplifier Stages Complementary Device Type: SK3949</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)				Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions				
Small Signal	Static								Power Output	Operating Frequency			
h_{ie}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	Gp dB	P _{OUT} Test W	F _o MHz			
12-50		7		0.02 Min	0.75 Max	5 Max	0.75 Max				T-040	SK3894	
$V_{CE} (V) = 1$ $I_C (A) = 1.2$													
12-100					0.5 Max	1.5 Max	0.5 Max				T-043	SK3895	
$V_{CE} (V) = 2$ $I_C (A) = 8$													
1K Min											T-036	SK3896	
$V_{CE} (V) = 3$ $I_C (A) = 3$													
1K Min											T-036	SK3897	
$V_{CE} (V) = -3$ $I_C (A) = -3$													
250-800		230 Typ									T-017	SK3899	
$V_{CE} (V) = 12$ $I_C (A) = 0.002$													
85-340											T-010	SK3911	
$V_{CE} (V) = 10$ $I_C (A) = 0.01$													
85-340											T-010	SK3912	
$V_{CE} (V) = -10$ $I_C (A) = -0.01$													
500 Min		10 Typ									T-040	SK3913	
$V_{CE} (V) = 4$ $I_C (A) = 1$													
200 Typ		15 Typ			1	3	0.5				T-036	SK3929	
$V_{CE} (V) = 10$ $I_C (A) = 0.7$													
40 Min		20 Typ			0.4	1.5	0.5				T-036	SK3930	
$V_{CE} (V) = -10$ $I_C (A) = -0.7$													
400-800		350 Typ									T-023	SK3931	
$V_{CE} (V) = 12$ $I_C (A) = 0.002$													
400-800		150 Typ									T-023	SK3932	
$V_{CE} (V) = -12$ $I_C (A) = -0.002$													
1K Min					0.9		11				T-047	SK3935	
$V_{CE} (V) = 4$ $I_C (A) = 5$													
1K Min					0.9		11				T-047	SK3936	
$V_{CE} (V) = -4$ $I_C (A) = -5$													
30-120		40 Min			0.3	1.0	0.25				T-043	SK3945	
$V_{CE} (V) = 2$ $I_C (A) = 10$													
12-40				0.01	0.085	0.8	0.095				T-043	SK3946	
$V_{CE} (V) = 5$ $I_C (A) = 2.5$													
15-60		4 Min									T-043	SK3947	
$V_{CE} (V) = 4$ $I_C (A) = 8$													
750-18K											T-043	SK3948	
$V_{CE} (V) = 3$ $I_C (A) = 6$													



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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages			
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CEO} V	Emitter-To-Base BV _{EB0} V	
SK3949	Si	PNP	150	-12	-0.2	-100	-100	-5	<i>Application: Darlington Power Amplifier Stages</i> <i>Complementary Device Type: SK3948</i>
SK3958	Si	NPN	80	10	3	100	100	5	<i>Application: Power Amplifier and High-Speed Switching Circuits</i> <i>Complementary Device Type: SK3959</i>
SK3959	Si	PNP	80	-10	-3	-100	-100	-5	<i>Application: Power Amplifier and High-Speed Switching Circuits</i> <i>Complementary Device Type: SK3958</i>
SK3960	Si	NPN	125	25	5	100	100	5	<i>Application: Power Amplifier and High-Speed Switching Circuits</i> <i>Complementary Device Type: SK3961</i>
SK3961	Si	PNP	125	-25	-5	-100	-100	-5	<i>Application: Power Amplifier and High-Speed Switching Circuits</i> <i>Complementary Device Type: SK3960</i>
SK3978	Si	NPN	75	8	0.120	100	100	5	<i>Application: Darlington Power Amplifier Circuits</i> <i>Complementary Device Type: SK3979</i>
SK3979	Si	PNP	75	-8	0.120	-100	-100	-5	<i>Application: Darlington Power Amplifier Circuits</i> <i>Complementary Device Type: SK3978</i>
SK3983	Si	NPN	100	3	0.6	500	400	5	<i>Application: High-Voltage Power Amplification and Switching</i>
SK3984	Si	PNP	0.3	-0.1		-50	-40	-5	<i>Application: RF/IF Amplifier, Oscillator, High-Speed Switching</i>
SK3995	Si	NPN	150	15	5	600	400	5	<i>Application: TV Deflection; High-Voltage Switching Power Amp.</i>
SK3996	Si	NPN	40	4	0.1	80	80	5	<i>Application: Audio Amplifier Stages</i> <i>Complementary Device Type: SK3997</i>
SK3997	Si	PNP	40	-4	-0.1	-80	-80	-5	<i>Application: Audio Amplifier Stages</i> <i>Complementary Device Type: SK3996</i>
SK4900	Ge	PNP	170	60	10	60	45	30	<i>Application: High Current General Purpose Amplifier</i>
SK4903	Si	PNP	125	16	5	V _{CB} = 160	160	V _{EB} = 7	<i>Application: High Voltage - High Power</i> <i>Complementary Device Type: SK4904</i>
SK4904	Si	NPN	125	16	5	V _{CB} = 160	160	V _{EB} = 7	<i>Application: High Voltage - High Power</i> <i>Complementary Device Type: SK4903</i>
SK4906	Si	NPN	2.5	1		60	V _{CES} = 50	12	<i>Application: High Current General Purpose Amplifier and Switch</i>
SK4907	Si	NPN	70	5			80		<i>Application: General Purpose</i>
SK4908	Si	NPN	100	12		500	400	7	<i>Application: Switching Regulators</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	Gp dB	POUT Test W	Fo MHz		
750-18K											T-043	SK3949
$V_{CE}(V) = -3$												
$I_C(A) = -6$												
40 Min		3 Min									T-047	SK3958
$V_{CE}(V) = 4$												
$I_C(A) = 1$												
40 Min		3 Min									T-047	SK3959
$V_{CE}(V) = -4$												
$I_C(A) = -1$												
25 Min		3 Min									T-047	SK3960
$V_{CE}(V) = 4$												
$I_C(A) = 1.5$												
25 Min		3 Min									T-047	SK3961
$V_{CE}(V) = -4$												
$I_C(A) = -1.5$												
4 Min	1K-10K										T-046	SK3978
$V_{CE}(V) = 4$												
$I_C(A) = 3$												
4 Min	1K-10K										T-046	SK3979
$V_{CE}(V) = -4$												
$I_C(A) = -3$												
30-150		2.5 Min									T-047	SK3983
$V_{CE}(V) = 10$												
$I_C(A) = 0.3$												
105 Typ		1000 Typ									T-008	SK3984
$V_{CE}(V) = -1$												
$I_C(A) = -0.001$												
20-140		4 Typ			0.8	3.5	0.6				T-043	SK3995
$V_{CE}(V) = 5$												
$I_C(A) = 5$												
750-2000											T-045	SK3996
$V_{CE}(V) = 3$												
$I_C(A) = 2$												
750 Min											T-045	SK3997
$V_{CE}(V) = -3$												
$I_C(A) = -2$												
60-180											T-043	SK4900
$V_{CE}(V) = V_{CB} = 2$												
$I_C(A) = 15$												
35 Typ		1 Min									T-099	SK4903
$V_{CE}(V) = 2$												
$I_C(A) = 8$												
35 Typ		1 Min									T-099	SK4904
$V_{CE}(V) = 2$												
$I_C(A) = 8$												
4000-40000		100-1000									T-103	SK4906
$V_{CE}(V) = 5$												
$I_C(A) = 1$												
750 Min		1 Min									T-083	SK4907
$V_{CE}(V) =$												
$I_C(A) = 3$												
15-40		20 Typ									T-084	SK4908
$V_{CE}(V) = 5$												
$I_C(A) = 1.6$												



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TCE Type	Device Material & Polarity		MAXIMUM RATINGS					
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages		
						Collector-To-Base BV _{CEO} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V
SK4909	Si	NPN	60	8	2	400	200	6
<i>Application: Horizontal Deflection Circuits</i>								
SK4919	Si	NPN	125	8	4		450	
<i>Application: High Voltage, Fast Switching Industrial Application</i>								
SK4939	Si	NPN	0.2	0.02		30	30	4
<i>Application: VHF, RF Amplifier</i>								
SK9031	Si	NPN	150	20	5	160	140	7
<i>Application: High-Power AF Applications Complementary Device Type: SK9032</i>								
SK9032	Si	PNP	150	-16	-4	-160	-140	-7
<i>Application: High-Power AF Applications Complementary Device Type: SK9031</i>								
SK9033	Si	NPN	250	20	5	140	140	5
<i>Application: High-Power AF Output Stages Complementary Device Type: SK9034</i>								
SK9034	Si	PNP	250	-20	-5	-140	-140	-5
<i>Application: High-Power AF Output Stages Complementary Device Type: SK9033</i>								
SK9038	Si	NPN	3.5	0.4	0.4	40	20	2
<i>Application: High-Gain UHF/VHF Driver</i>								
SK9039	Si	NPN	175	20	10		500	6
<i>Application: High-Speed Switching Applications</i>								
SK9040	Si	NPN	250	50	20	180	150	6
<i>Application: Power Amplifier and Switching Applications</i>								
SK9041	Si	NPN	20	1.5		180 Min	160 Min	5 Min
<i>Application: AF Driver Applications Complementary Device Type: SK9042</i>								
SK9042	Si	PNP	20	-1.5		-180	-160	-5
<i>Application: AF Driver Applications Complementary Device Type: SK9041</i>								
SK9076	Si	PNP	10	-3	-0.6	-50	-40	-5
<i>Application: AF Output, CB Modulator Stages Complementary Device Type: SK3357</i>								
SK9085	Si	NPN	100	12	6		400	9
<i>Application: High-Voltage, High-Speed Power Switching</i>								
SK9107	Si	NPN	50	4	0.080	80	80	5
<i>Application: Amplifier/Switch Complementary Device Type: SK9108</i>								
SK9108	Si	PNP	50	-4	0.080	-80	-80	-5
<i>Application: Amplifier/Switch Complementary Device Type: SK9107</i>								
SK9109	Si	NPN	150	10	2.5		400	8
<i>Application: High-Speed Switch</i>								
SK9110	Si	NPN	250	50	10		400	8
<i>Application: High-Speed Switch</i>								

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)				Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions				
Small Signal	Static								Power Output	Operating Frequency			
h_{FE}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	P _{OUT} Test W	F _o MHz			
				$t_{on} = 0.3$		0.55	0.20				T-085	SK4909	
V _{CE} (V) = I _C (A) =											T-087	SK4919	
				$t_{on} = 1$		4	0.8				T-088	SK4939	
V _{CE} (V) = I _C (A) =								23 Typ		200	T-088	SK4939	
60-200					530 Typ		2 db Typ						
V _{CE} (V) = 10 I _C (A) = 0.003											T-043	SK9031	
15-60					2 Typ								
V _{CE} (V) = 4 I _C (A) = 8											T-043	SK9032	
15-60					2 Min								
V _{CE} (V) = -4 I _C (A) = -8											T-043	SK9033	
25-150					2 Min								
V _{CE} (V) = 2 I _C (A) = 5											T-043	SK9034	
25-150					2 Min								
V _{CE} (V) = -2 I _C (A) = -5									10 Min	1 175	T-005	SK9038	
10-200					500 Min								
V _{CE} (V) = 5 I _C (A) = 0.1											T-043	SK9039	
15-75					5-40		0.08 Typ	0.55 Typ	0.7 Typ	0.11 Typ			
V _{CE} (V) = 5 I _C (A) = 5								0.35 Max	0.8 Max	0.25 Max		T-043	SK9040
30-120					30 Min								
V _{CE} (V) = 4 I _C (A) = 20											T-045	SK9041	
100-200					140 Typ								
V _{CE} (V) = 5 I _C (A) = 0.15											T-045	SK9042	
100-200					140 Typ								
V _{CE} (V) = -5 I _C (A) = -0.15											T-039	SK9076	
80-220					150 Typ								
V _{CE} (V) = -5 I _C (A) = -1											T-036	SK9085	
8-40					4 Min		0.1 Max	1 Max	3 Max	0.7 Max			
V _{CE} (V) = 5 I _C (A) = 5											T-040	SK9107	
750-18K													
V _{CE} (V) = 3 I _C (A) = 2											T-040	SK9108	
750-18K													
V _{CE} (V) = -3 I _C (A) = -2											T-043	SK9109	
40-500							0.2 Max	0.6 Max	1.5 Max	5 Max			
V _{CE} (V) = 5 I _C (A) = 2.5											T-043	SK9110	
25 Min							0.3 Max	1 Max	2.5 Max	1 Max			
V _{CE} (V) = 5 I _C (A) = 20													

Bipolar Transistors

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate.	Collector Current Continuous	Base Current	Breakdown Voltages			
						Collector-To-Base	Collector-To-Emitter	Emitter-To-Base	
P _T W	I _C A	I _B A	BV _{CB0} V	BV _{CE0} V	BV _{EB0} V				
SK9111	Si	NPN	175	20	2.5		500	8	
<i>Application: High-Speed Switch</i>									
SK9112	Si	NPN	50	10	5		80	5	
<i>Application: AF Power Output/General-Purpose Amplifier</i>									
<i>Complementary Device Type: SK9113</i>									
SK9113	Si	PNP	50	-10	-5		-80	-5	
<i>Application: AF Power Output/General-Purpose Amplifier</i>									
<i>Complementary Device Type: SK9112</i>									
SK9114	Si	NPN	2	0.6		75	40	6	
<i>Application: High-Speed Switching and DC-to-VHF Amplifiers</i>									
<i>Complementary Device Type: SK9115</i>									
SK9115	Si	PNP	2	0.6		60	60	5	
<i>Application: High-Speed Switching and DC-to-VHF Amplifier</i>									
<i>Complementary Device Type: SK9114</i>									
SK9116	Si	NPN	30	4	2		60	5	
<i>Application: AF Power Output Stages</i>									
<i>Complementary Device Type: SK9117</i>									
SK9117	Si	PNP	30	-4	2		-60	-5	
<i>Application: AF Power Output Stages</i>									
<i>Complementary Device Type: SK9116</i>									
SK9118	Si	NPN	25	2		200	150	6	
<i>Application: TV Vertical Deflection Output</i>									
<i>Complementary Device Type: SK9363</i>									
SK9119	Si	NPN	50	6		1500	600	5	
<i>Application: TV Deflection</i>									
SK9131	Si	NPN	150	15	4		450	7	
<i>Application: Fast-Switching, High-Voltage Circuits</i>									
SK9132	Si	PNP	0.4	-0.5		-50	-50	-4	
<i>Application: Audio-Frequency AM/FM</i>									
<i>Complementary Device Type: SK3122</i>									
SK9134	Si	NPN	200	30	10	100	100	4	
<i>Application: Audio Power Amplifier</i>									
<i>Complementary Device Type: SK9136</i>									
SK9136	Si	PNP	200	-30	-10	-100	-100	-5	
<i>Application: Power Amplifiers</i>									
<i>Complementary Device Type: SK9134</i>									
SK9137	Si	NPN	0.9	1		120	100	5	
<i>Application: Low-Frequency Power Amplifier</i>									
<i>Complementary Device Type: SK9138</i>									
SK9138	Si	PNP	0.9	-1		-120	-100	-5	
<i>Application: Low-Frequency Power Amplifier</i>									
<i>Complementary Device Type: SK9137</i>									
SK9139	Si	NPN	0.6	0.07		25	12	3	
<i>Application: VHF/UHF Low-Noise Amplifier</i>									
SK9140	Si	NPN	175	15	5		400	7	
<i>Application: High-Voltage Switching</i>									
SK9141	Si	NPN	100	5	2	375	300	6	
<i>Application: DC Regulator and General-Purpose</i>									

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)				Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product fr MHz	Noise Figure NF	Delay Time td μS	Rise Time tr μS	Storage Time ts μS	Fall Time tf μS	Power Gain Gp dB	Test Conditions				
Small Signal h _{ie}	Static h _{FE}								Power Output P _{out} Test W	Operating Frequency Fo MHz			
40-400				0.25 Max	1.5 Max	2 Max	0.6 Max				T-043	SK9111	
V _{CE} (V) = 5 I _C (A) = 5													
60 Min	50 Typ					0.50 Typ	0.14 Typ				T-036	SK9112	
V _{CE} (V) = 1 I _C (A) = 2													
60 Min	50 Typ					0.50	0.10				T-036	SK9113	
V _{CE} (V) = -1 I _C (A) = -2													
100-300	250 Min			0.015 Max	0.03 Max	0.25 Max	0.06 Max				T-011	SK9114	
V _{CE} (V) = 10 I _C (A) = 0.15													
50 Typ	200 Min			0.012 Max	0.035 Max	0.1 Max	0.04 Max				T-011	SK9115	
V _{CE} (V) = 10 I _C (A) = 0.15													
40-120	50 Typ					0.5 Typ	0.075 Typ				T-036	SK9116	
V _{CE} (V) = 1 I _C (A) = 0.2													
40-120	40 Typ					0.5 Typ	0.050 Typ				T-036	SK9117	
V _{CE} (V) = -1 I _C (A) = -0.2													
100-320	8 Typ										T-036	SK9118	
V _{CE} (V) = 2 I _C (A) = 0.5													
12 Typ	3 Typ						1 Max				T-043	SK9119	
V _{CE} (V) = 5 I _C (A) = 1													
						3 Max	0.8 Max				T-047	SK9131	
V _{CE} (V) = I _C (A) =													
100-200	200										T-017	SK9122	
V _{CE} (V) = -3 I _C (A) = -0.01													
25 Min											T-043	SK9134	
V _{CE} (V) = 4 I _C (A) = 5													
25 Typ											T-043	SK9136	
V _{CE} (V) = -4 I _C (A) = -5													
160-320	140 Typ										T-023	SK9137	
V _{CE} (V) = 5 I _C (A) = 0.15													
160-320	140										T-023	SK9138	
V _{CE} (V) = -5 I _C (A) = -0.15													
40-200	5000	1.5dB @ 1GHz									T-019	SK9139	
V _{CE} (V) = 10 I _C (A) = 0.02													
8-20	15-50			0.1	0.8	2.5	0.5				T-043	SK9140	
V _{CE} (V) = 2 I _C (A) = 10													
15-130	5 Min										T-043	SK9141	
V _{CE} (V) = 10 I _C (A) = 0.4													



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TCE Type	Device Material & Polarity		MAXIMUM RATINGS					
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages		
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V
SK9142	Si	NPN	1	1		70	70=V _{CES}	5
			Application: AF Power Output Complementary Device Type: SK9143					
SK9143	Si	PNP	1	-1		70	-70=V _{CES}	-5
			Application: AF Power Output Complementary Device Type: SK9142					
SK9229	Si	NPN	0.8	0.4		70	70	4
			Application: Small-Signal General-Purpose Amplifier/Switch					
SK9234	Si	NPN	75	15	5	90	80	5
			Application: Power Linear and Switching Applications Complementary Device Type: SK9236					
SK9236	Si	PNP	75	-15	-5	-90	-80	-5
			Application: Power Linear and Switching Applications Complementary Device Type: SK9234					
SK9237	Si	NPN	200	10	2		250	5
			Application: High-Power Linear Amplifier Complementary Device Type: SK9239					
SK9239	Si	PNP	200	-10	-2		-250	-5
			Application: High-Power Linear Amplifier Complementary Device Type: SK9237					
SK9253	Si	NPN	6.25	0.5			50	13
			Application: Audio Output/Driver/Regulator Applications					
SK9254	Si	NPN	6.25	0.5			30	13
			Application: Audio Output/Driver/Regulator Applications					
SK9255	Si	NPN	10	2			50	13
			Application: Audio Output/Driver/Regulator Applications Complementary Device Type: SK9256					
SK9256	Si	PNP	10	-2			-50	-13
			Application: Audio Output/Driver/Regulator Applications Complementary Device Type: SK9255					
SK9259	Si	NPN	60	7	1	100	100	6
			Application: Wideband Amplifier, Switching Circuits					
SK9260	Si	PNP	20	-0.5			-300	-3
			Application: Audio and TV Applications Complementary Device Type: SK3747					
SK9261	Si	NPN	150	10	5		500	8
			Application: Switching Applications					
SK9262	Si	NPN	175	15	5		400	8
			Application: High-Voltage Switching Applications					
SK9263	Si	NPN	40	1	0.6		400	8
			Application: Switching Applications					
SK9264	Si	NPN	150	10	1	450	450	5
			Application: Power Darlington/Automotive Ignition					
SK9271	Si	NPN		25	10	150	90	7
			Application: High-Current Amplifier/Fast Switch					

OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (if Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (if Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	Power Test W	Fo MHz		
	150	150									T-025	SK9142
V _{CE} (V) = 10												
I _C (A) = 0.15												
	150	150									T-017	SK9143
V _{CE} (V) = -10												
I _C (A) = -0.15												
	40 Min	200									T-017	SK9229
V _{CE} (V) = 10												
I _C (A) = 0.5												
	20-150										T-036	SK9234
V _{CE} (V) = 4												
I _C (A) = 5												
	20-150										T-036	SK9236
V _{CE} (V) = -4												
I _C (A) = -5												
	20-100										T-043	SK9237
V _{CE} (V) = 2												
I _C (A) = 2												
	20-100										T-043	SK9239
V _{CE} (V) = -2												
I _C (A) = -2												
	40K Min	75 Min			0.35 Typ	0.80 Typ					T-034	SK9253
V _{CE} (V) = 5												
I _C (A) = 0.2												
	90K Min	75 Typ			0.35 Typ	0.80 Typ					T-034	SK9254
V _{CE} (V) = 5												
I _C (A) = 0.2												
	1K Min	75 Typ									T-034	SK9255
V _{CE} (V) = 5												
I _C (A) = 1.5												
	1K Min	100 Typ									T-034	SK9256
V _{CE} (V) = -5												
I _C (A) = -1.5												
	6 Min	30 Min		0.1	0.1	2	0.2				T-051	SK9259
V _{CE} (V) = 2												
I _C (A) = 0.5												
	30-240										T-045	SK9260
V _{CE} (V) = 10												
I _C (A) = 0.05												
	8-40	15-60		0.1 Max	0.4 Max	3 Max	0.4 Max				T-043	SK9261
V _{CE} (V) = 3												
I _C (A) = 5												
	8 Min	15-50		0.1	0.6	2.5	0.5				T-043	SK9262
V _{CE} (V) = 3												
I _C (A) = 15												
	20-100	10-50		0.05	0.4	2.5	0.6				T-036	SK9263
V _{CE} (V) = 3												
I _C (A) = 0.3												
	100 Min										T-043	SK9264
V _{CE} (V) = 3												
I _C (A) = 6												
	20-55	10	20								T-053	SK9271
V _{CE} (V) = 2												
I _C (A) = 15												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages			
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V	
SK9272	Si	NPN	66.7	10		120	100	6	<i>Application: High-Current Amplifier, Fast-Switching Circuits</i>
SK9274	Si	NPN	35	7	0.7	100	100	6	<i>Application: General-Purpose Amplifier/Switch</i>
SK9275	Si	NPN	30	5	1	100	80	8	<i>Application: High-Power Amplifier, Switching Circuits</i>
SK9295	Si	NPN	40	3	0.3	250	250	6	<i>Application: High-Voltage Amplifier/Switch</i>
SK9297	Si	NPN	100	5	1	200	150	6	<i>Application: High-Gain Amplifier/DC Regulator</i>
SK9351	Si	PNP	10	-0.5		-300	-300	-5	<i>Application: TV Video/Chroma Amplifier</i> <i>Complementary Device Type: SK3232</i>
SK9352	Si	NPN	0.9	0.1		300	300	7	<i>Application: TV Chroma Output, Horizontal Driver</i>
SK9362A	Si	NPN	15	0.2		300	300	7	<i>Application: AF Amplifier, Power Amplifier</i>
SK9363	Si	PNP	30	-2		-200	-150	-6	<i>Application: TV Vertical Deflection/Audio Amplifier</i> <i>Complementary Device Type: SK9118</i>
SK9364	Si	NPN	40	3	1	100	80	6	<i>Application: AF High Power Amplifier</i>
SK9365	Si	PNP	250	-16	-5	-400	-250	-5	<i>Application: High Power Amplifier</i> <i>Complementary Device Type: SK3947</i>
SK9366	Si	NPN	50	8	2	150	150	5	<i>Application: High Frequency AF Circuits</i> <i>Complementary Device Type: SK9367</i>
SK9367	Si	PNP	50	-8	2	-150	-150	-5	<i>Application: High Frequency AF Circuits</i> <i>Complementary Device Type: SK9366</i>
SK9368	Si	NPN	8	1.5	0.3	140	100	5	<i>Application: AF Power Amplifier</i> <i>Complementary Device Type: SK9369</i>
SK9369	Si	PNP	8	-1.5		-120	-100	-5	<i>Application: AF Power Amplifier</i> <i>Complementary Device Type: SK9368</i>
SK9370	Si	NPN	20	2	0.2	150	80	8	<i>Application: High Speed Switching</i>
SK9371	Si	NPN	0.4	0.04		20	12	3	<i>Application: Small Signal Amplifiers/UHF/Microwave</i>
SK9372	Si	NPN	0.375	0.03		25	15	3	<i>Application: RF Applications At 1 GHz</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)				
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions		Figure No.	TCE Type
Small Signal	Static								Power Output	Operating Frequency		
h_{ie}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	POUT Test W	Fo MHz		
30-90		30									T-052	SK9272
V _{CE} (V) = 5 I _C (A) = 5.5												
60-240		30									T-051	SK9274
V _{CE} (V) = 2 I _C (A) = 2												
40-120											T-054	SK9275
V _{CE} (V) = 2 I _C (A) = 1												
90-250											T-051	SK9295
V _{CE} (V) = 5 I _C (A) = 0.5												
400 Min		15									T-043	SK9297
V _{CE} (V) = 4 I _C (A) = 1												
25		60									T-029	SK9351
V _{CE} (V) = -10 I _C (A) = -0.01												
30-150		50 Min									T-023	SK9352
V _{CE} (V) = 10 I _C (A) = 0.02												
60-200		50 Min									T-036	SK9362A
V _{CE} (V) = 10 I _C (A) = 0.01												
100-200											T-036	SK9363
V _{CE} (V) = -4 I _C (A) = -0.05												
500		50 Typ									T-036	SK9364
V _{CE} (V) = 4 I _C (A) = 0.5												
15-60		4 Min									T-043	SK9365
V _{CE} (V) = -4 I _C (A) = -8												
40 Min		30									T-036	SK9366
V _{CE} (V) = 2 I _C (A) = 0.1												
40 Min		30									T-036	SK9367
V _{CE} (V) = -2 I _C (A) = -0.1												
30-150		60 Typ				3 Typ	0.2 Typ				T-005	SK9368
V _{CE} (V) = 2 I _C (A) = 0.2												
30-150		60 Typ				2 Typ	0.2 Typ				T-005	SK9369
V _{CE} (V) = -2 I _C (A) = -0.2												
2K-30K						1 Typ	1 Typ				T-045	SK9370
V _{CE} (V) = 2 I _C (A) = 1												
30-200		5000	2.5dB @ 1 GHz								T-012	SK9371
V _{CE} (V) = 10 I _C (A) = 0.03												
30-200		4500	2.0dB @ 1 GHz								T-012	SK9372
V _{CE} (V) = 5 I _C (A) = 0.005												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P_T W	Collector Current Continuous I_C A	Base Current I_B A	Breakdown Voltages			
						Collector-To-Base BV_{CBO} V	Collector-To-Emitter BV_{CEO} V	Emitter-To-Base BV_{EBO} V	
SK9373	Si	NPN	0.18	0.03		25	15	3	<i>Application: RF Applications</i>
SK9374	Si	NPN	150	12	4		500	8	<i>Application: High-Voltage Switching</i>
SK9387	Si	NPN	1	0.6		60	40	5	<i>Application: Small Signal Applications</i>
SK9390	Si	PNP	100	-9		-200	-140	-5	<i>Application: Low-Frequency Power Amplifier Complementary Device Type: SK9389</i>
SK9391	Si	NPN	40	7		130	100	7	<i>Application: Switching</i>
SK9407	Si	NPN	0.5	0.15		60	50	5	<i>Application: High-Speed Switch</i>
SK9408	Si	NPN	20	1.5		180	160	5	<i>Application: Low-Frequency Power Amplifier Complementary Device Type: SK9409</i>
SK9409	Si	PNP	20	-1.5		-180	-160	-5	<i>Application: Low-Frequency Power Amplifier Complementary Device Type: SK9408</i>
SK9410	Si	NPN	0.9	1.5	0.050	30	30	10	<i>Application: Switching and Power Amplifier</i>
SK9411	Si	NPN	100	5		1500	1500= V_{GES}	5	<i>Application: TV Horizontal Deflection</i>
SK9412	Si	NPN	2	1		325	300	6	<i>Application: High-Voltage, High-Current TV Applications</i>
SK9413	Si	NPN	100	12		160	140	6	<i>Application: High-Current Switching; AF Power Output Complementary Device Type: SK9415</i>
SK9415	Si	PNP	100	-12		-160	-140	-6	<i>Application: High-Current Switching; AF Power Output Complementary Device Type: SK9413</i>
SK9417	Si	NPN	10	1.5	0.15	150	60	8	<i>Application: AF Power Amplifier, Switch</i>
SK9418	Si	NPN	0.75	2		40	32	5	<i>Application: AF Small Signal Amplifier</i>
SK9421	Si	NPN	80	10	1	150	100	8	<i>Application: High-Speed Switching</i>
SK9422	Si	NPN	70	6		1500	800	7	<i>Application: TV Horizontal Deflection</i>
SK9423	Si	NPN	0.4	0.05		100	100	5	<i>Application: Low-Noise Differential Amplifiers Complementary Device Type: SK9424</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type	
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions				
Small Signal	Static								Power Output	Operating Frequency			
h_{fe}	h_{FE}	f_r MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	POUT Test W	Fo MHz			
25-250		5000	2.4dB @ 0.5 GHz									T-013	SK9373
V _{CE} (V) = 10													
I _C (A) = 0.0145													
6-40		15-60	0.1				0.45	3	0.4			T-043	SK9374
V _{CE} (V) = 3													
I _C (A) = 8													
30-75		390 Typ										T-021	SK9387
V _{CE} (V) = 1													
I _C (A) = 0.1													
60-200		7 Typ										T-048	SK9390
V _{CE} (V) = -5													
I _C (A) = -1													
90-269		30 Typ					1.5 Typ	0.1 Typ				T-036	SK9391
V _{CE} (V) = 2													
I _C (A) = 3													
160-560		100	0.06				0.13	0.45	0.25			T-017	SK9407
V _{CE} (V) = 6													
I _C (A) = 0.001													
100-200		140 Typ										T-044	SK9408
V _{CE} (V) = 5													
I _C (A) = 0.15													
60-200		140 Typ										T-044	SK9409
V _{CE} (V) = -5													
I _C (A) = -0.15													
4K Min						0.6 Typ	0.3 Typ					T-023	SK9410
V _{CE} (V) = 2													
I _C (A) = 0.15													
6-20												T-043	SK9411
V _{CE} (V) = 10													
I _C (A) = 5													
25 Min		30-300										T-063	SK9412
V _{CE} (V) = 10													
I _C (A) = 0.05													
60-200		15 Typ					6.68 Typ	0.68 Typ				T-048	SK9413
V _{CE} (V) = 5													
I _C (A) = 1													
60 Min		15					6.68 Typ	0.68 Typ				T-048	SK9415
V _{CE} (V) = -5													
I _C (A) = -1													
4K-30K						1 Typ	1 Typ					T-055	SK9417
V _{CE} (V) = 2													
I _C (A) = 1													
120-390		100										T-010	SK9418
V _{CE} (V) = 3													
I _C (A) = 0.5													
6K Typ						1 Typ	0.6 Typ					T-056	SK9421
V _{CE} (V) = 2													
I _C (A) = 10													
8 Min												T-048	SK9422
V _{CE} (V) = 5													
I _C (A) = 1													
400-800		150 Typ	0.5	db								T-057	SK9423
V _{CE} (V) = 6													
I _C (A) = 0.001													



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TCE Type	Device Material & Polarity		MAXIMUM RATINGS					
			Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages		
						Collector-To-Base BV _{CEO} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EBO} V
SK9424	Si	PNP	0.4	-0.05		-100	-100	-5
			Application: Low-Noise Differential Amplifiers Complementary Device Type: SK9423					
SK9425	Si	NPN	0.4	0.1		50	50	5
			Application: Low-Noise Differential Amplifiers Complementary Device Type: SK9426					
SK9426	Si	PNP	0.4	-0.1		-50	-50	-5
			Application: Low-Noise Differential Amplifiers Complementary Device Type: SK9425					
SK9427	Si	NPN	0.4	0.1		100	100	5
			Application: Low-Noise Differential Amplifiers Complementary Device Type: SK9428					
SK9428	Si	PNP	0.4	-0.1		-100	-100	-5
			Application: Low-Noise Differential Amplifiers Complementary Device Type: SK9427					
SK9429	Si	NPN	150	15		160	160	5
			Application: Hi-Current Driving Applications Such As PC Printer Complementary Device Type: SK9430					
SK9431	Si	NPN	40	5	0.5	500	300	10
			Application: High-Voltage, Low-Speed Industrial Switching					
SK9432	Si	NPN	0.625	0.1		40	30	4
			Application: VHF Mixers in TV Receivers					
SK9433	Si	NPN	0.6	0.5		60	40	5
			Application: High-Speed Switching Complementary Device Type: SK9434					
SK9434	Si	PNP	0.6	-0.5		-60	-40ms	-5
			Application: High-Speed Switching Complementary Device Type: SK9433					
SK9435	Si	NPN	10	1		180	180	5
			Application: Horizontal Drive and High-Voltage Linear Circuits					
SK9436	Si	NPN	10	2		50	40	12
			Application: Amplifier and Driver Applications Complementary Device Type: SK9437					
SK9437	Si	PNP	10	-2		-50	-40	-10
			Application: Amplifier and Driver Applications Complementary Device Type: SK9436					
SK9438	Si	NPN	150	12	0.2	80	80	5
			Application: AF Amplifiers, Power Switching Complementary Device Type: SK9439					
SK9439	Si	PNP	150	-12	-0.2	-80	-80	-5
			Application: AF Amplifiers, Power Switching Complementary Device Type: SK9438					
SK9440	Si	NPN	160	20	0.5	100	100	5
			Application: AF Amplifiers, Power Switching Complementary Device Type: SK9441					
SK9441	Si	PNP	160	-20	-0.5	-100	-100	-5
			Application: AF Power Amplifier, Switching Circuits Complementary Device Type: SK9440					
SK9442	Si	NPN	0.625	0.5		60 Min	60=V _{CEs}	10
			Application: Preamplifier Input Circuits Complementary Device Type: SK9443					

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	G_p dB	POUT Test W	F_o MHz		
400-800		150	0.5 db								T-057	SK9424
$V_{CE} (V) = -6$												
$I_C (A) = -0.001$												
400-800		150	0.5 db								T-057	SK9425
$V_{CE} (V) = 6$												
$I_C (A) = 0.001$												
400-800		150	0.5 db								T-057	SK9426
$V_{CE} (V) = -6$												
$I_C (A) = -0.001$												
400-800		100									T-058	SK9427
$V_{CE} (V) = 6$												
$I_C (A) = 0.001$												
400-800		100									T-058	SK9428
$V_{CE} (V) = -6$												
$I_C (A) = -0.001$												
120-240		80									T-064	SK9429
$V_{CE} (V) = 5$												
$I_C (A) = 1$												
600-3000						12 Typ	6 Typ				T-036	SK9431
$V_{CE} (V) = 2$												
$I_C (A) = 2$												
30 Min		620									T-019	SK9432
$V_{CE} (V) = 10$												
$I_C (A) = 0.008$												
50-300		400				0.225	0.275				T-021	SK9433
$V_{CE} (V) = 1$												
$I_C (A) = 0.15$												
50-300		400				0.225	0.255				T-021	SK9434
$V_{CE} (V) = -2$												
$I_C (A) = -0.15$												
40 Min		35 Min									T-029	SK9435
$V_{CE} (V) = 10$												
$I_C (A) = 0.01$												
25K-150K											T-029	SK9436
$V_{CE} (V) = 5$												
$I_C (A) = 0.2$												
25K-150K											T-029	SK9437
$V_{CE} (V) = -5$												
$I_C (A) = -0.2$												
750-18K											T-043	SK9438
$V_{CE} (V) = 3$												
$I_C (A) = 6$												
750-18K											T-043	SK9439
$V_{CE} (V) = -3$												
$I_C (A) = -6$												
750-18K											T-043	SK9440
$V_{CE} (V) = 3$												
$I_C (A) = 10$												
750-18K											T-043	SK9441
$V_{CE} (V) = -3$												
$I_C (A) = -10$												
10K Min											T-021	SK9442
$V_{CE} (V) = 5$												
$I_C (A) = 0.01$												

Bipolar Transistors

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS					
			Device Power Dissipate. P_T W	Collector Current Continuous I_C A	Base Current I_B A	Breakdown Voltages		
						Collector-To-Base BV_{CBO} V	Collector-To-Emitter BV_{CEO} V	Emitter-To-Base BV_{EBO} V
SK9443	Si	PNP	0.625	-0.5		-60	-60= V_{CES}	-10
			<i>Application: Pre-amplifier Input Circuits Complementary Device Type: SK9442</i>					
SK9444	Si	NPN	0.25	0.07		25	12	3
			<i>Application: Microwave Lo-Noise Amp for Cable TV, Antennas, Etc</i>					
SK9445	Si	NPN	40	5		250	80	6
			<i>Application: High-Voltage, High-Current Switching</i>					
SK9446	Si	NPN	150	15	5	200	200	6
			<i>Application: High-Power Linear Amplifier Complementary Device Type: SK9447</i>					
SK9447	Si	PNP	150	-15	-5	-200	-200	-6
			<i>Application: High-Power Linear Amplifier Complementary Device Type: SK9446</i>					
SK9448	Si	NPN	200	17	5	200	200	6
			<i>Application: High-Power Linear Amplifier Complementary Device Type: SK9449</i>					
SK9449	Si	PNP	200	-17	-5	-200	-200	-6
			<i>Application: High-Power Linear Amplifier Complementary Device Type: SK9448</i>					
SK9450	Si	NPN	75	15	5	90	80	5
			<i>Application: AF Power/Switching Circuits Complementary Device Type: SK9451</i>					
SK9451	Si	PNP	75	-15	-5	-90	-80	-5
			<i>Application: AF Power/Switching Circuits Complementary Device Type: SK9450</i>					
SK9452	Si	NPN	75	4	2		400	9
			<i>Application: High-Speed Switching</i>					
SK9453	Si	NPN	0.9	2		50	50	5
			<i>Application: High-Current Switching/Power Amplifiers Complementary Device Type: SK9454</i>					
SK9454	Si	PNP	0.9	-2		-50	-50	-5
			<i>Application: High-Current Switching/Power Amplifiers Complementary Device Type: SK9453</i>					
SK9455A	Si	NPN	0.75	1		60	50	10
			<i>Application: Darlington AF Amplifier Complementary Device Type: SK9456A</i>					
SK9456A	Si	PNP	0.75	-1		-60	-50	-5
			<i>Application: Darlington AF Amplifier Complementary Device Type: SK9455A</i>					
SK9457	Si	NPN	40	7		130	80	7
			<i>Application: Power Switching Complementary Device Type: SK9458</i>					
SK9458	Si	PNP	40	-7		-130	-80	-7
			<i>Application: Power Switching Complementary Device Type: SK9457</i>					
SK9459	Si	NPN	0.35	0.2		45	45	6.5
			<i>Application: Low-Level, Low-Noise AF Amplifiers</i>					
SK9461	Si	NPN	0.625	0.5		100	100	12
			<i>Application: Darlington Pre-amplifier, Amplifier</i>					

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	Gp dB	POUT Test W	Fo MHz		
10K Min											T-021	SK9443
$V_{CE} (V) = -5$ $I_C (A) = -0.01$												
40-200		4500	1.5dB @ 1GHz								T-012	SK9444
$V_{CE} (V) = 10$ $I_C (A) = 0.02$												
14 Min		40									T-036A	SK9445
$V_{CE} (V) = 4$ $I_C (A) = 5$												
30 Min		20 Typ									T-061	SK9446
$V_{CE} (V) = 4$ $I_C (A) = 5$												
30 Min		20 Typ									T-061	SK9447
$V_{CE} (V) = -4$ $I_C (A) = -5$												
30 Min		20 Typ									T-061	SK9448
$V_{CE} (V) = 4$ $I_C (A) = 8$												
30 Min		20 Typ									T-061	SK9449
$V_{CE} (V) = -4$ $I_C (A) = -8$												
20-150											T-036	SK9450
$V_{CE} (V) = 4$ $I_C (A) = 5$												
20-150											T-036	SK9451
$V_{CE} (V) = -4$ $I_C (A) = -5$												
10-60		4 Min	0.1 Max	0.7 Max	4 Max	0.9 Max					T-036	SK9452
$V_{CE} (V) = 5$ $I_C (A) = 1$												
120-240		100			1 Typ	0.1 Typ					T-023	SK9453
$V_{CE} (V) = 2$ $I_C (A) = 0.5$												
120-240		100			1 Typ	0.1 Typ					T-023	SK9454
$V_{CE} (V) = -2$ $I_C (A) = -0.5$												
4K-20K											T-023	SK9455A
$V_{CE} (V) = 10$ $I_C (A) = 1$												
4K-20K											T-023	SK9456A
$V_{CE} (V) = -10$ $I_C (A) = -1$												
90-260		30			1.5 Typ	0.1 Typ					T-062	SK9457
$V_{CE} (V) = 2$ $I_C (A) = 0.1$												
90-260		30			1.5 Typ	0.1 Typ					T-062	SK9458
$V_{CE} (V) = -2$ $I_C (A) = -0.1$												
500-1500		160 Typ	4 db @ 100 HZ								T-021	SK9459
$V_{CE} (V) = 5$ $I_C (A) = 0.01$												
10K Min		200 Typ									T-021	SK9461
$V_{CE} (V) = 5$ $I_C (A) = 0.01$												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P_T W	Collector Current Continuous I_C A	Base Current I_B A	Breakdown Voltages			
						Collector-To-Base BV_{CBO} V	Collector-To-Emitter BV_{CEO} V	Emitter-To-Base BV_{EBO} V	
SK9462	Si	NPN	10	1	0.5	450	350	7	<i>Application: Switching/Video Output/Linear Amplifiers</i>
SK9463	Si	NPN	1	3		60	50	6	<i>Application: High-Current Driver Complementary Device Type: SK9464</i>
SK9464	Si	PNP	1	-3		-60	-50	-6	<i>Application: High-Current Driver Complementary Device Type: SK9463</i>
SK9465	Si	NPN	0.4	0.3	0.060	50	20	25	<i>Application: High-Speed Switching</i>
SK9466	Si	NPN	1.25	0.05		200	200	5	<i>Application: Lo-Freq, High-Voltage, used in IBM Color Complementary Device Type: SK9467</i>
SK9467	Si	PNP	1.25	-0.05		-200	-200	-5	<i>Application: Lo-Freq, High-Voltage, used in IBM Color Monitors Complementary Device Type: SK9466</i>
SK9468	Si	NPN				140	80	7	<i>Application: General Purpose and Switching Complementary Device Type: SK9469</i>
SK9469	Si	PNP				-80	-80	-7	<i>Application: General Purpose and Switching Complementary Device Type: SK9468</i>
SK9470	Si	NPN				80	50	6	<i>Application: High-Speed Switching</i>
SK9471	Si	PNP				-40	-40	-5	<i>Application: High-Speed Switching</i>
SK9472	Si	NPN	0.85			500	370	7 Min	<i>Application: High-Voltage Amplifiers for TV</i>
SK9473	Si	NPN	0.85			500	375	7 Min	<i>Application: High-Voltage Amplifiers for TV</i>
SK9474	Si	NPN	50	7	5	180	130	7	<i>Application: Power Switching Circuits</i>
SK9475	Si	NPN	40	5	0.5	50	50	6	<i>Application: Has Internal Diode and Zener Clamp Protection</i>
SK9476	Si	NPN	125	8	4		700		<i>Application: Hi-Voltage, Hi-Speed used in TV Horiz. Deflection</i>
SK9477	Si	NPN	0.2	0.1		120	120	5	<i>Application: Low-Noise, High-Beta Amplifiers</i>
SK9478	Si	NPN	80	4		55	55	5	<i>Application: Power Regulators for TV</i>
SK9479	Si	NPN	45	8		60	60	7	<i>Application: Power Amplifier with Built-in Zener Diode</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	POUT Test W	Fo MHz		
40-160											T-034	SK9462
$V_{CE}(V) = 10$ $I_C(A) = 0.02$												
140-400		150									T-023	SK9463
$V_{CE}(V) = 2$ $I_C(A) = 0.1$												
140-400		150									T-023	SK9464
$V_{CE}(V) = -2$ $I_C(A) = -0.1$												
350-1200		30				0.5	0.13				T-017	SK9465
$V_{CE}(V) = 2$ $I_C(A) = 0.004$												
100-200		140									T-030A	SK9466
$V_{CE}(V) = 5$ $I_C(A) = 0.01$												
100-200		140									T-030A	SK9467
$V_{CE}(V) = -5$ $I_C(A) = -0.01$												
100-300		100									T-063	SK9468
$V_{CE}(V) = 10$ $I_C(A) = 0.15$												
100-300		150 Min									T-063	SK9469
$V_{CE}(V) = -5$ $I_C(A) = -0.1$												
60-150				0.005	0.015	0.035	0.020				T-063	SK9470
$V_{CE}(V) = 1$ $I_C(A) = 0.15$												
40 Min		175		0.010	0.030	0.060	0.030				T-063	SK9471
$V_{CE}(V) = 1$ $I_C(A) = 0.15$												
40-90											T-063	SK9472
$V_{CE}(V) = 10$ $I_C(A) = 0.01$												
40-90											T-065	SK9473
$V_{CE}(V) = 10$ $I_C(A) = 0.01$												
20 Min		50-200		0.1	0.25	0.1	0.5				T-036	SK9474
$V_{CE}(V) = 2$ $I_C(A) = 5$												
4000		20		$t_{on} = 0.6$		4.0	1.5				T-036	SK9475
$V_{CE}(V) = 3$ $I_C(A) = 2.5$												
		7				6.5	0.7				T-047	SK9476
$V_{CE}(V) =$ $I_C(A) =$												
350-700		100									T-067	SK9477
$V_{CE}(V) = 6$ $I_C(A) = 3.002$												
1000											T-048	SK9478
$V_{CE}(V) = 5$ $I_C(A) = 0.5$												
2000											T-083	SK9479
$V_{CE}(V) = 3$ $I_C(A) = 4$												

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P_T W	Collector Current Continuous I_C A	Base Current I_B A	Breakdown Voltages			
						Collector-To-Base BV_{CBO} V	Collector-To-Emitter BV_{CEO} V	Emitter-To-Base BV_{EBO} V	
SK9480	Si	NPN	10	2		60	60	8	<i>Application: Switching Circuits</i>
SK9481	Si	NPN	45	8		60	60	7	<i>Application: Power Amplifier with Built-in Zener Diode</i>
SK9482	Si	PNP	90	-15		-60	-50	-6	<i>Application: Hi-Cur. Switching for Relay Drivers, Hi-Spd Invert.</i>
SK9483	Si	NPN	80	5		200	180	5	<i>Application: Color TV Power Regulators</i>
SK9484	Si	NPN	175	15	10		400	9	<i>Application: Hi-Volt/Hi-Speed Power Switching in Inductive Ckts</i>
SK9485	Si	NPN	65	2.5	2		750	5	<i>Application: Horizontal Deflection Circuits</i>
SK9486	Si	NPN	120	5		1500	800	7	<i>Application: High-Definition, Horizontal Deflection Output</i>
SK9487	Si	NPN	120	5		1500	800	7	<i>Application: TV Horizontal Deflection</i>
SK9488	Si	NPN	100	6		900	800	7	<i>Application: Switching Regulator</i>
SK9489	Si	PNP	150	-15	-1.5	-200	-200	-5	<i>Application: Power Amplifiers</i>
SK9600	Si	NPN	5	0.4		50	30	5	<i>Application: CATV Broad Band Amplifier</i>
SK9601	Si	NPN	5	0.4		50	30	5	<i>Application: CATV Broad Band Amplifier</i>
SK9602	Si	NPN	2.5	0.2		34	17	2.5	<i>Application: CATV Broad Band Amplifier</i>
SK9603	Si	NPN	175	10		36	18	4	<i>Application: HF RF Power Amp in Indust.-Commerc.-Amateur Radios</i>
SK9604	Si	NPN	80	6			18	4	<i>Application: RF Power Amplifier</i>
SK9605	Si	NPN	80	7		36	18	4	<i>Application: RF Power Amplifier</i>
SK9606	Si	NPN	80	6		36	18	4	<i>Application: VHF Marine & Mobile Transmitters</i>
SK9607	Si	NPN	115	7.5		40	20	4	<i>Application: RF Power Amplifier</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)				Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions				
Small Signal	Static								Power Output	Operating Frequency			
h_{fe}	h_{FE}	f _T MHz	NF	t _d μS	t _r μS	t _s μS	t _f μS	Gp dB	P _{OUT} Test W	Fo MHz			
8000											T-045	SK9480	
V _{CE} (V) = 2													
I _C (A) = 1													
2000											T-036A	SK9481	
V _{CE} (V) = 3													
I _C (A) = 4													
100		20									T-048	SK9482	
V _{CE} (V) = -2													
I _C (A) = -1													
1000											T-048	SK9483	
V _{CE} (V) = 5													
I _C (A) = 1													
12-60		6-28		0.05	1	4	0.7				T-043	SK9484	
V _{CE} (V) = 2													
I _C (A) = 5													
		4 Typ						1 Max			T-085	SK9485	
V _{CE} (V) =													
I _C (A) =													
8 Min		3 Typ						0.3			T-084	SK9486	
V _{CE} (V) = 5													
I _C (A) = 1													
8 Min		3 Typ						0.4			T-084	SK9487	
V _{CE} (V) = 5													
I _C (A) = 1													
10-40		15 Typ		t _{on} = 1		3	0.7				T-084	SK9488	
V _{CE} (V) = 5													
I _C (A) = 0.4													
55-160		25 Typ									T-089	SK9489	
V _{CE} (V) = 5													
I _C (A) = 1													
30-300		1800		9dB Max @216MHz							T-082	SK9600	
V _{CE} (V) = 20													
I _C (A) = 0.07													
30-300		1800		9db Max @216MHZ							T-082	SK9601	
V _{CE} (V) = 20													
I _C (A) = 0.07													
50-200		4500 Typ	5.5					10	500		T-005	SK9602	
V _{CE} (V) = 5													
I _C (A) = 0.05													
10-150		30						12 Min	80	30	T-068	SK9603	
V _{CE} (V) = 5													
I _C (A) = 5													
10 Min		200						10	40	50	T-068	SK9604	
V _{CE} (V) = 5													
I _C (A) = 0.250													
5 Min								4.5 Min	40	175	T-080	SK9605	
V _{CE} (V) = 5													
I _C (A) = 1													
5 Min		200						4.5	40	175	T-069	SK9606	
V _{CE} (V) = 5													
I _C (A) = 0.25													
10 Min								15 Typ	50	30	T-038	SK9607	
V _{CE} (V) = 5													
I _C (A) = 0.01													

Bipolar Transistors

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P _T W	Collector Current Continuous I _c A	Base Current I _b A	Breakdown Voltages			
						Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V	
SK9608	Si	NPN	115	7.5		40	20	4	<i>Application: RF Power Amplifier</i>
SK9609	Si	NPN	175	15			18	4	<i>Application: RF Power Amplifier</i>
SK9610	Si	NPN	175	15			18	4	<i>Application: RF Power Amplifier</i>
SK9611	Si	NPN	270	15		36	18	4	<i>Application: RF Power Amplifier</i>
SK9612	Si	NPN	250	20		45	25	4	<i>Application: RF Power Amplifier</i>
SK9613	Si	NPN	20	2			18	4	<i>Application: RF Driver Amplifier</i>
SK9614	Si	NPN	50	3.5			24	4	<i>Application: RF Driver, Power Output Amplifiers</i>
SK9615	Si	NPN	80	4.5		36	18	4	<i>Application: RF Driver, Power Output Amplifiers for FM SSB</i>
SK9616	Si	NPN	115	10		36	18	4	<i>Application: RF Power Amplifiers</i>
SK9617	Si	NPN	8	0.64		36	18	4	<i>Application: RF Power Amplifiers</i>
SK9618	Si	NPN	12	1		36	18	4	<i>Application: RF Power Amplifiers for VHF Communications</i>
SK9619	Si	NPN	40	2.5		36	18	4	<i>Application: RF Power Amplifiers for VHF Communications</i>
SK9620	Si	NPN	50	7		35	17	4	<i>Application: RF Power Amplifiers</i>
SK9621	Si	NPN	65	4		36	18	4	<i>Application: RF Power Amplifiers for VHF Communications</i>
SK9622	Si	NPN	3.5	0.4		40	20	2	<i>Application: VHF Communications, RF Driver or Pre-Driver Amp</i>
SK9623	Si	NPN	12	1		36	18	4	<i>Application: RF Amplifier, VHF Communications</i>
SK9624	Si	NPN	30	2		36	18	4	<i>Application: VHF RF Amplifier in Mobile and Marine Transmitters</i>
SK9625	Si	NPN	31	2.5		36	18	4	<i>Application: RF Power Amplifier, VHF Marine and Mobile</i>

T-33-01

OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type	
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions				
Small Signal	Static								Power Output	Operating Frequency			
h_{ie}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	POUT Test W	Fo MHz			
10 Min								15 Typ	50	30	T-069	SK9608	
$V_{CE} (V) = 5$ $I_C (A) = 0.01$													
10-150								13 Min	60	30	T-069	SK9609	
$V_{CE} (V) = 5$ $I_C (A) = 5$													
10-150								13	60	30	T-038	SK9610	
$V_{CE} (V) = 5$ $I_C (A) = 5$													
60 Typ								13 Min	75	30	T-068	SK9611	
$V_{CE} (V) = 5$ $I_C (A) = 5$													
10-150								12 Min	80	30	T-070	SK9612	
$V_{CE} (V) = 5$ $I_C (A) = 5$													
5 Min									8	50	T-038	SK9613	
$V_{CE} (V) = 5$ $I_C (A) = 0.5$													
15 Typ									20	50	T-038	SK9614	
$V_{CE} (V) = 5$ $I_C (A) = 1.2$													
50 Typ				30					18	20	30	T-069	SK9615
$V_{CE} (V) = 5$ $I_C (A) = 1$													
60 Typ								10.5Typ	40	50	T-070	SK9616	
$V_{CE} (V) = 5$ $I_C (A) = 1$													
5 Min								10 Min	4	175	T-005EC	SK9617	
$V_{CE} (V) = 5$ $I_C (A) = .05$													
5 Min								10 Min	5	175	T-071	SK9618	
$V_{CE} (V) = 5$ $I_C (A) = 0.25$													
5 Min								6.3 Min	15 Min	175	T-071	SK9619	
$V_{CE} (V) = 5$ $I_C (A) = 0.5$													
10-180								10	30	175	T-081	SK9620	
$V_{CE} (V) = 10$ $I_C (A) = .2$													
20 Min								9.2	25 Min	175	T-038	SK9621	
$V_{CE} (V) = 5$ $I_C (A) = 1$													
10-200				500 Min					10 Min	1	175	T-005	SK9622
$V_{CE} (V) = 5$ $I_C (A) = .10$													
5 Min								12 Min	4	175	T-038	SK9623	
$V_{CE} (V) = 5$ $I_C (A) = .25$													
5 Min				200					5.2 Min	10	175	T-038	SK9624
$V_{CE} (V) = 5$ $I_C (A) = 0.25$													
5 Min								6.3 Min	15	175	T-069	SK9625	
$V_{CE} (V) = 5$ $I_C (A) = 0.5$													

Bipolar Transistors

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TCE Type	Device Material & Polarity	MAXIMUM RATINGS					
		Device Power Dissipate. P _T W	Collector Current Continuous I _C A	Base Current I _B A	Breakdown Voltages		
					Collector-To-Base BV _{CB0} V	Collector-To-Emitter BV _{CE0} V	Emitter-To-Base BV _{EB0} V
SK9626	Si NPN	250	20		36	18	4
<i>Application: VHF Large Signal Amplifier FM Equipment</i>							
SK9627	Si PNP	8	-1		-36	-18	-4
<i>Application: RF Amplifier for VHF Communications</i>							
SK9628	Si PNP	20	-2.5		-36	-18	-4
<i>Application: RF Amplifier for VHF Communications</i>							
SK9629	Si PNP	40	-4		-36	-18	-4
<i>Application: RF Amplifier for VHF Communications</i>							
SK9630	Si PNP	60	-6		-36	-18	-4
<i>Application: RF Amplifier for VHF Communications</i>							
SK9631	Si NPN	15	1		65	35	4
<i>Application: VHF RF Power Amplifiers</i>							
SK9632	Si NPN	30	3		65	35	4
<i>Application: VHF RF Power Amplifiers</i>							
SK9633	Si NPN	60	5		65	35	4
<i>Application: VHF RF Power Amplifiers</i>							
SK9634	Si NPN	5	0.4		36	16	4
<i>Application: UHF Communications</i>							
SK9635	Si NPN	5	0.75		36	16	4
<i>Application: UHF Communications</i>							
SK9636	Si NPN	15	1.7		36	16	4
<i>Application: UHF RF Power Amplifiers</i>							
SK9637	Si NPN	37.5	3.4		36	16	4
<i>Application: UHF Communications</i>							
SK9638	Si NPN	37.5	3.4		36	16	4
<i>Application: UHF Communications</i>							
SK9639	Si NPN	75	5		36	16	4
<i>Application: UHF Communications</i>							
SK9640	Si NPN	175	10		36	16	4
<i>Application: UHF Communications</i>							
SK9641	Si NPN	218	13		36	16	4
<i>Application: UHF Communications</i>							
SK9642	Si NPN	290	20		36	18	4
<i>Application: RF Power Amplifier, Amateur & Marine</i>							
SK9643	Si NPN	270	15		65	36	4
<i>Application: HF RF Amplifier, SS B Transmitters</i>							

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (If Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (If Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	Gp dB	P _{OUT} Test W	F _o MHz		
10-150								8.5 Typ	75	175	T-075	SK9626
V _{CE} (V) = 5 I _C (A) = 5												
5 Min								12 Min	4	175	T-069	SK9627
V _{CE} (V) = 5 I _C (A) = 0.25												
15 Min								6.3 Min	15	175	T-069	SK9628
V _{CE} (V) = 5 I _C (A) = 0.5												
15 Min								5.7 Min	30	175	T-069	SK9629
V _{CE} (V) = 5 I _C (A) = 0.5												
15								4.5 Min	40	175	T-069	SK9630
V _{CE} (V) = 5 I _C (A) = 0.5												
5 Min		300						8.4 Min	7	175	T-072	SK9631
V _{CE} (V) = 5 I _C (A) = 0.1												
5 Min		250						8.2 Min	20	175	T-038	SK9632
V _{CE} (V) = 5 I _C (A) = 0.2												
5 Min		200						7.6 Min	40	175	T-038	SK9633
V _{CE} (V) = 5 I _C (A) = 0.5												
20-200								8 Min	2	470	T-005EC	SK9634
V _{CE} (V) = 5 I _C (A) = 0.05												
20 Min								10 Min	2	470	T-076	SK9635
V _{CE} (V) = 5 I _C (A) = 0.1												
20 Min								8.5 Min	5	470	T-076	SK9636
V _{CE} (V) = 5 I _C (A) = 0.2												
20 Min								6 Min	10	470	T-076	SK9637
V _{CE} (V) = 5 I _C (A) = 0.5												
20 Min								7.5 Min	15	470	T-075	SK9638
V _{CE} (V) = 5 I _C (A) = 0.5												
20 Min								6.2 Min	25	470	T-075	SK9639
V _{CE} (V) = 5 I _C (A) = 0.25												
20 Min								6.0 Typ	50	470	T-075	SK9640
V _{CE} (V) = 5 I _C (A) = 1												
20 Min								5.5 Typ	65	470	T-075	SK9641
V _{CE} (V) = 5 I _C (A) = 1												
10 Min								13 Typ	100	30	T-068	SK9642
V _{CE} (V) = 5 I _C (A) = 5												
50 Typ								16 Typ	100 PEP	30	T-068	SK9643
V _{CE} (V) = 5 I _C (A) = 5												



Bipolar Transistors

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P_T W	Collector Current Continuous I_C A	Base Current I_B A	Breakdown Voltages			
						Collector-To-Base BV_{CBO} V	Collector-To-Emitter BV_{CEO} V	Emitter-To-Base BV_{EBO} V	
SK9644	Si	NPN	3.5	0.25		36	18	4	<i>Application: HF & VHF Large Signal RF Power Amplifier</i>
SK9645	Si	NPN	7	0.5		36	18	4	<i>Application: VHF Mobile & Marine Transmitters</i>
SK9647	Si	NPN	11.6	1.5		36	18	4	<i>Application: HI-Band Marine & Mobile VHF</i>
SK9648	Si	NPN	23	3		36	18	4	<i>Application: VHF Marine & Mobile</i>
SK9649	Si	NPN	145	6		36	18	4	<i>Application: VHF Marine & Mobile</i>
SK9650	Si	NPN	270	15		36	18	4	<i>Application: VHF Marine & Mobile</i>
SK9651	Si	NPN	3.5	0.25		36	14	4	<i>Application: HF & VHF Large Signal RF Amplifier</i>
SK9652	Si	NPN	145	8		36	16	4	<i>Application: UHF RF Communications</i>
SK9653	Si	NPN	28	5		36	16	4	<i>Application: UHF Communications</i>
SK9654	Si	NPN	46	7		36	16	4	<i>Application: UHF Communications</i>
SK9655	Si	NPN	46	7		36	16	4	<i>Application: UHF Communications</i>
SK9656	Si	NPN	75	10		36	16	4	<i>Application: UHF Communications</i>
SK9657	Si	NPN	70	7.5		36	18	4	<i>Application: UHF Communications</i>
SK9658	Si	NPN	3.5	0.4		50	30	5	<i>Application: UHF Multiplier</i>
SK9659	Si	NPN	7	0.5		36	18	4	<i>Application: High Band VHF</i>
SK9660	Si	NPN	15	0.6		36	18	4	<i>Application: VHF RF Power Amplifier</i>
SK9661	Si	NPN	0.6	0.5		25	20	12	<i>Application: Low Voltage Output Amplifier</i>
SK9662	Si	PNP	0.75	-0.7		-80	-80	-5	<i>Application: Audio Frequency Power Amplifier</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (if Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (if Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μ S	t_r μ S	t_s μ S	t_f μ S	Gp dB	POUT Test W	Fo MHz		
15-150								9 Min	1.5	225	T-005	SK9644
$V_{CE} (V) = 5$ $I_C (A) = 0.1$												
350 Typ								6 Min	4 Min	175	T-005	SK9645
$V_{CE} (V) =$ $I_C (A) =$												
350 Typ								5.4 Min	7 Min	175	T-074	SK9647
$V_{CE} (V) =$ $I_C (A) =$												
350 Typ								4.8 Min	12 Min	175	T-074	SK9648
$V_{CE} (V) =$ $I_C (A) =$												
50 Typ								7 Typ	50 Typ	175	T-075	SK9649
$V_{CE} (V) = 5$ $I_C (A) = 5$												
10 Min								7 Typ	100 Min	175	T-075	SK9650
$V_{CE} (V) = 5$ $I_C (A) = 5$												
15-150								9 Min	1.5	225	T-005	SK9651
$V_{CE} (V) = 5$ $I_C (A) = 0.1$												
20 Min								6.5 Min	40 Min	470	T-075	SK9652
$V_{CE} (V) = 5$ $I_C (A) = 1$												
20 Min								8 Min	6 Min	836	T-077	SK9653
$V_{CE} (V) = 6$ $I_C (A) = 1$												
20 Min								5.2 Min	15 Min	836	T-078	SK9654
$V_{CE} (V) = 6$ $I_C (A) = 1$												
20 Min								6 Min	18 Min	836	T-077	SK9655
$V_{CE} (V) = 6$ $I_C (A) = 1$												
20 Min								5 Min	25 Min	836	T-077	SK9656
$V_{CE} (V) = 6$ $I_C (A) = 1$												
15 Min								5.5 Min	25 Min	836	T-079	SK9657
$V_{CE} (V) = 5$ $I_C (A) = 1$												
30-300								7.2 Typ		216	T-005	SK9658
$V_{CE} (V) = 15$ $I_C (A) = 0.05$												
350 Typ								7.3 Typ	4	175	T-005ETC	SK9659
$V_{CE} (V) =$ $I_C (A) =$												
5 Min								8.2 Min	3	175	T-072	SK9660
$V_{CE} (V) = 5$ $I_C (A) = 0.1$												
400-800		200Typ									T-090	SK9661
$V_{CE} (V) = 2$ $I_C (A) = 0.5$												
120-270		100 Typ									T-091	SK9662
$V_{CE} (V) = -3$ $I_C (A) = -0.1$												

Bipolar Transistors

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TCE Type	Device Material & Polarity		MAXIMUM RATINGS						
			Device Power Dissipate. P_T W	Collector Current Continuous I_c A	Base Current I_b A	Breakdown Voltages			
						Collector-To-Base BV_{CBO} V	Collector-To-Emitter BV_{CEO} V	Emitter-To-Base BV_{EBO} V	
SK9663	Si	NPN	0.3	0.05		30	19	4	<i>Application: RF Amplifier</i>
SK9664	Si	NPN	0.3	0.1		50	40	5	<i>Application: Audio Frequency Small Signal Amplifier</i>
SK9665	Si	PNP	0.3	-0.1		-50	-40	-5	<i>Application: Audio Frequency Small Signal Amplifier</i>
SK9666	Si	NPN	1	1		80	80	5	<i>Application: Audio Frequency Power Amplifier</i>
SK9667	Si	PNP	1	-0.7		-80	-80	-5	<i>Application: Audio Frequency Power Amplifier</i>
SK9668	Si	NPN	1	2		40	32	5	<i>Application: Audio Frequency Amplifier</i>
SK9669	Si	PNP	1	-2		-40	-32	-5	<i>Application: Audio Frequency Power Amplifier</i>
SK9670	Si	NPN	1	1		120	80	5	<i>Application: Audio Frequency Power Amplifier</i>
SK9671	Si	NPN	0.25	0.05		30	14	3	<i>Application: RF Low Noise Amplifier</i>
SK9672	Si	NPN	0.2	0.1		120	120	5	<i>Application: Audio Amplifier</i>
SK9720	Si	NPN	1	0.7		20	20	15	<i>Application: AF Amplifier</i>
SK9741	Si	PNP	0.3	0.1					<i>Application: Inverters, Interface and Driver</i>
SK9742	Si	NPN	0.3	0.1					<i>Application: Inverters, Interface and Driver</i>
SK9823	Si	PNP	70	5			80		<i>Application: Darlington Pwr Amplifier</i>
SK9840	Si	NPN				100	80	5	<i>Application: General Purpose Amplifier</i>
SK9841	Si	PNP				100	80	5	<i>Application: General Purpose Amplifier</i>

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OPERATING CHARACTERISTICS				SWITCHING CHARACTERISTICS (if Any) MAX LIMITS, RESISTIVE LOAD				RF FUNCTIONAL DATA (if Any)			Figure No.	TCE Type
Current Gain		Gain-Bandwidth Product	Noise Figure	Delay Time	Rise Time	Storage Time	Fall Time	Power Gain	Test Conditions			
Small Signal	Static								Power Output	Operating Frequency		
h_{fe}	h_{FE}	f_T MHz	NF	t_d μS	t_r μS	t_s μS	t_f μS	Gp dB	POUT Test W	Fo MHz		
39-82		1100 Typ									T-092	SK9663
$V_{CE} (V) = 10$ $I_C (A) = 0.005$												
180-390		180 Typ									T-091	SK9664
$V_{CE} (V) = 6$ $I_C (A) = 0.001$												
120-560		140 Typ									T-091	SK9665
$V_{CE} (V) = -6$ $I_C (A) = -0.001$												
82-390		120 Typ									T-091	SK9666
$V_{CE} (V) = 3$ $I_C (A) = 0.1$												
82-390		100 Typ									T-092	SK9667
$V_{CE} (V) = -3$ $I_C (A) = -0.1$												
82-390		100 Typ									T-092	SK9668
$V_{CE} (V) = 3$ $I_C (A) = 0.5$												
120-270		100 Typ									T-092	SK9669
$V_{CE} (V) = -3$ $I_C (A) = -0.5$												
120-270		100 Typ									T-092	SK9670
$V_{CE} (V) = 3$ $I_C (A) = 0.5$												
25-200		2 Typ	3db Typ @ 500MHZ					15 Typ	500		T-093	SK9671
$V_{CE} (V) = 10$ $I_C (A) = 0.01$												
200-400		100 Typ	1db Typ @ 1KHZ								T-094	SK9672
$V_{CE} (V) = 6$ $I_C (A) = 0.002$												
1000-2500											T-097	SK9720
$V_{CE} (V) = 10$ $I_C (A) = 0.15$												
		250 Typ									T-098	SK9741
$V_{CE} (V) =$ $I_C (A) =$												
		250 Typ									T-098	SK9742
$V_{CE} (V) =$ $I_C (A) =$												
750 Min		1 Min									T-083	SK9823
$V_{CE} (V) =$ $I_C (A) = 4$												
40-250		50-400									T-100	SK9840
$V_{CE} (V) = 2$ $I_C (A) = 0.5$												
40-250		50 Min									T-100	SK9841
$V_{CE} (V) = 2$ $I_C (A) = 0.25$												



T-91-20

Replacing Transistors in the JEDEC TO-219 'Plastic TO-3' Case

Vertical-Lead
Types (for
TO-3 Sockets)

2N5034
2N5036
40514
40542
40543
40051 (PNP)

Horizontal
Leads (for
PC Boards)

2N5035
2N5037
40513



JEDEC TO-219AA



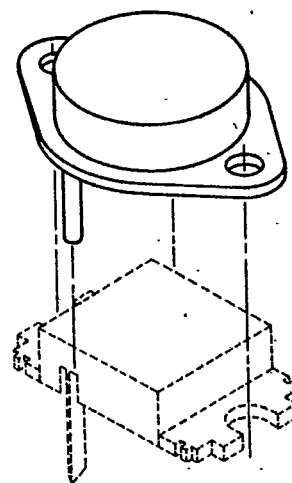
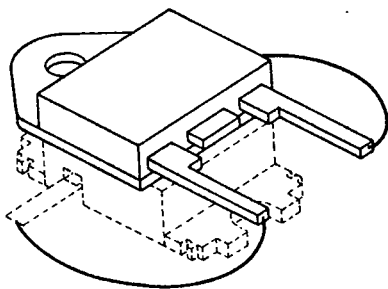
JEDEC TO-219AB

The RCA transistors above were discontinued in 1975. They were plastic versions of the JEDEC TO-3 metal case and fit a TO-3 socket. They have no "look-alike" replacements.

With the exception of type 40051, all were NPN audio frequency power types. The 40542 and 40051 were an AF complementary NPN/PNP pair.

The SK3027/130 in the TO-3 case will replace all of these types (except 40051) electrically, and is recommended to retrofit the vertical-lead devices. When 40542 and 40051 are used as complements, the recommended replacements are the complementary pair SK3297/280 (NPN) and SK3359/281 (PNP).

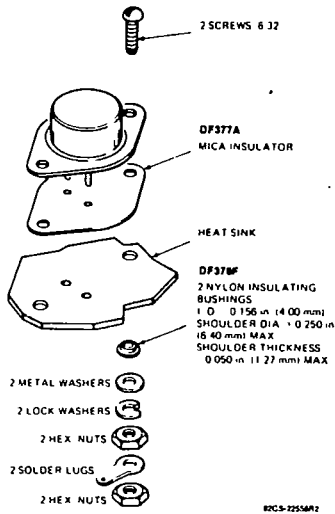
Extensive board modifications would be needed if a standard TO-3 were used to replace the horizontal-lead devices on a pc board. Hence, the suggested replacement is a transistor in a plastic case currently designed as a TO-3 retrofit, even though the new plastic cases do not have the base and emitter leads extended to the sides at a 90° angle. The SK3958/390 is a satisfactory electrical replacement and can be mounted on a pc board. Because the leads of these devices should not be bent to the sides, a piece of connecting wire ("spaghetti") should be used to make the connection from the base and emitter leads of the replacement to the solder point on the board.



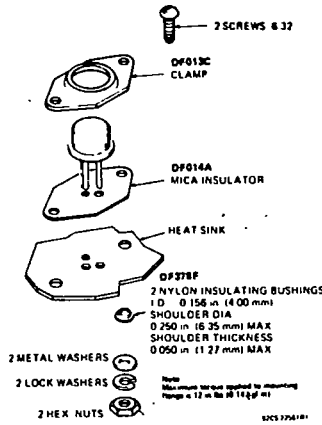
"Plastic TO-3" Retrofits

Suggested Hardware and Mounting Arrangements for Various Case Styles

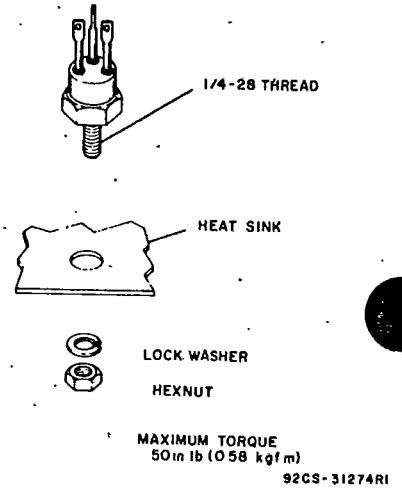
TO-3/TO-204MA



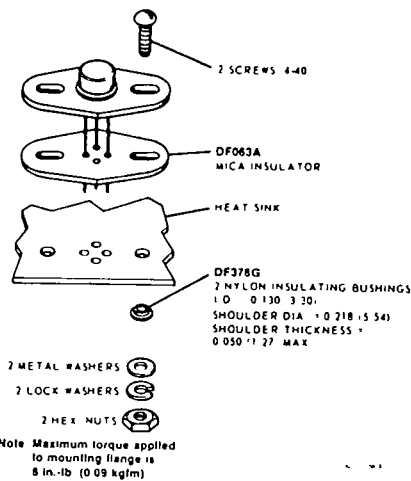
TO-8



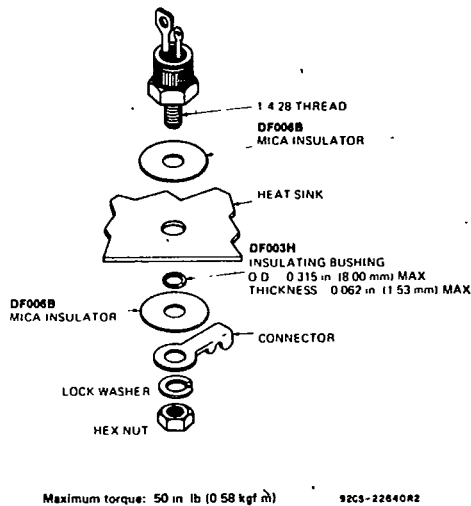
TO-61/TO-211MA



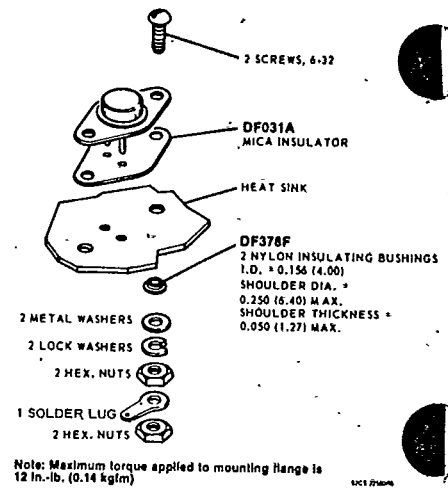
TO-5/TO-205MA
TO-39/TO-25MD
With Flange



TO-48/TO-208MA



TO-66/TO-213MA



TO-202AB

