

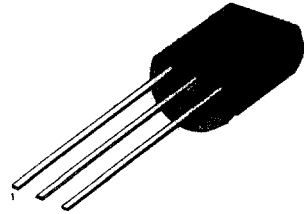
AUDIO FREQUENCY LOW NOISE AMPLIFIER

- Complement to KSA992

ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	120	V
Collector-Emitter Voltage	V_{CE0}	120	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	50	mA
Base Current	I_B	10	mA
Collector Dissipation	P_C	500	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ\text{C}$

TO-92



1. Emitter 2. Collector 3. Base

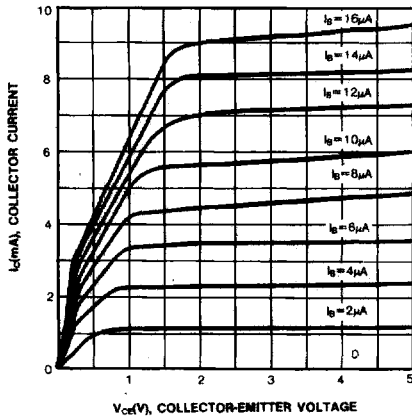
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-off Current	I_{C0}	$V_{CB}=120\text{V}, I_E=0$			50	nA
Emitter Cut-off Current	I_{E0}	$V_{EB}=5\text{V}, I_C=0$			50	nA
DC Current Gain	h_{FE1}	$V_{CE}=6\text{V}, I_C=0.1\text{mA}$	150	580		
	h_{FE2}	$V_{CE}=6\text{V}, I_C=1\text{mA}$	200	600	1200	
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=6\text{V}, I_C=1\text{mA}$	0.55	0.59	0.65	V
Collector Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10\text{mA}, I_B=1\text{mA}$		0.07	0.3	V
Current Gain-Bandwidth Product	f_T	$V_{CE}=6\text{V}, I_E=1\text{mA}$	50	110		MHz
Output Capacitance	C_{OB}	$V_{CB}=30\text{V}, I_E=0$ $f=1\text{MHz}$		1.6	2.5	pF
Noise Figure	NV			25	40	mV

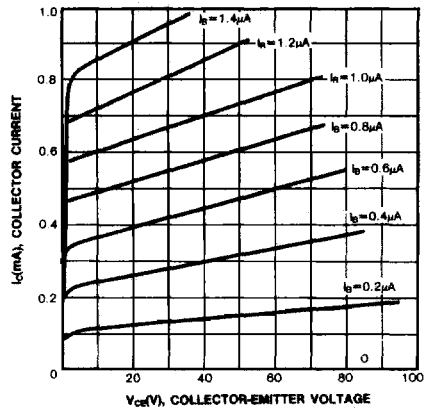
 h_{FE2} CLASSIFICATION

Classification	P	F	E	U
h_{FE2}	200-400	300-600	400-800	600-1200

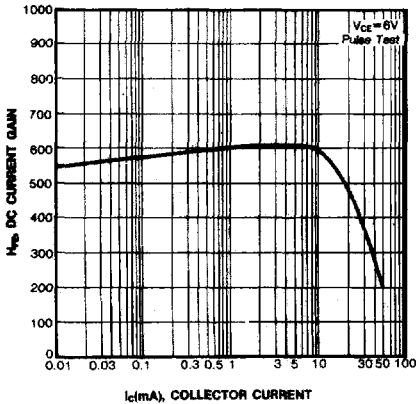
STATIC CHARACTERISTIC



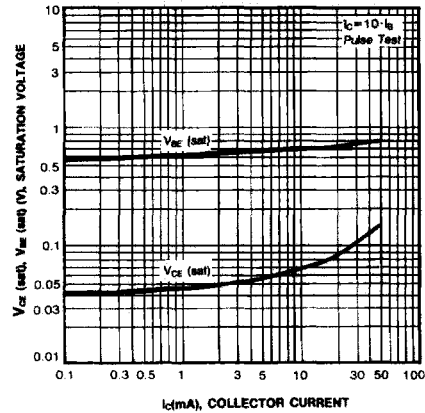
STATIC CHARACTERISTIC



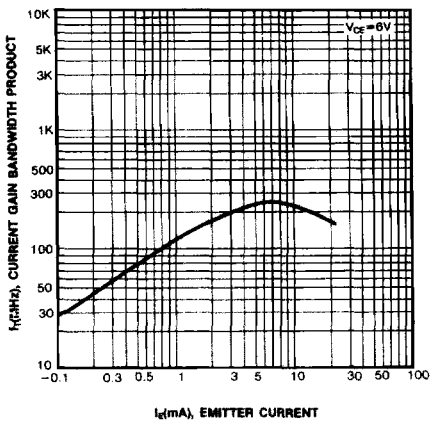
DC CURRENT GAIN



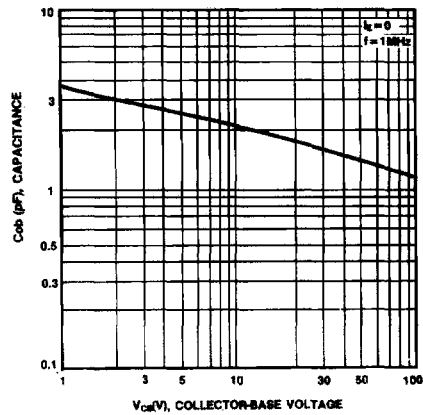
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR OUTPUT CAPACITANCE



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