

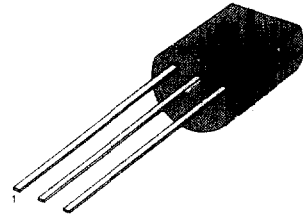
**AUDIO FREQUENCY AMPLIFIER
HIGH FREQUENCY OSC.**

- Complement to KSA733
- Collector-Base Voltage $V_{CBO}=60V$
- High Current Gain Bandwidth Product $f_T=300MHz$ (Typ)

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Collector Dissipation	P_C	250	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ C$

TO-92



1. Emitter 2. Base 3. Collector

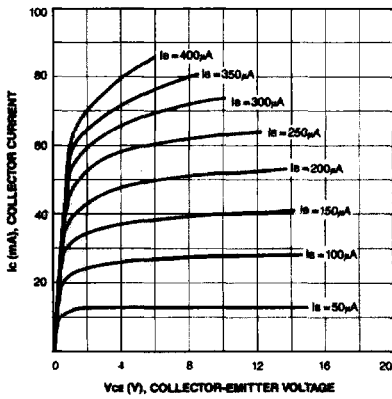
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ C$)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=100\mu A, I_E=0$	60			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=10mA, I_B=0$	50			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu A, I_C=0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB}=40V, I_E=0$			0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=3V, I_C=0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=6V, I_C=1.0mA$	40		700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$		0.15	0.3	V
Current Gain-Bandwidth Product	f_T	$V_{CE}=6V, I_C=10mA$		300		MHz
Output Capacitance	C_{OB}	$V_{CB}=6V, I_E=0$ $f=1MHz$		2.5		pF
Noise Figure	NF	$V_{CE}=6V, I_E=-0.5mA$ $f=1KHz, R_S=500\Omega$		4.0		dB

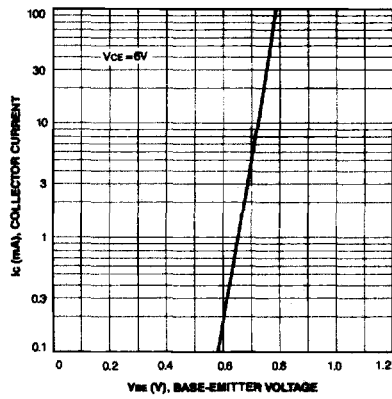
 h_{FE} CLASSIFICATION

Classification	R	O	Y	G	L
h_{FE}	40-80	70-140	120-240	200-400	350-700

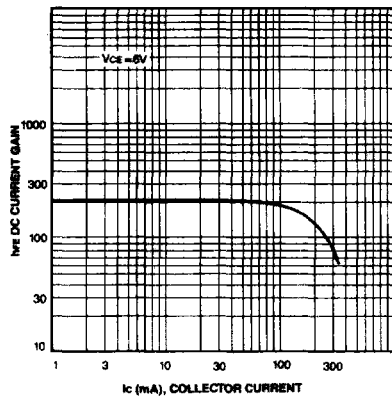
STATIC CHARACTERISTIC



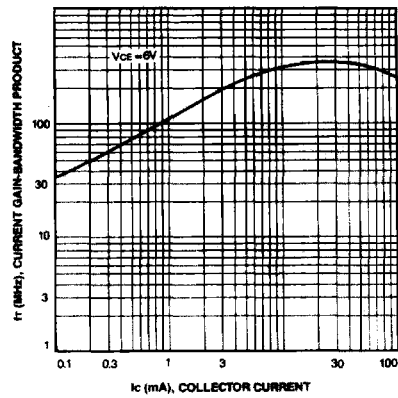
TRANSFER CHARACTERISTIC



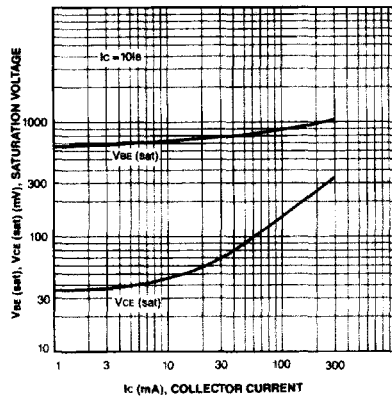
DC CURRENT GAIN



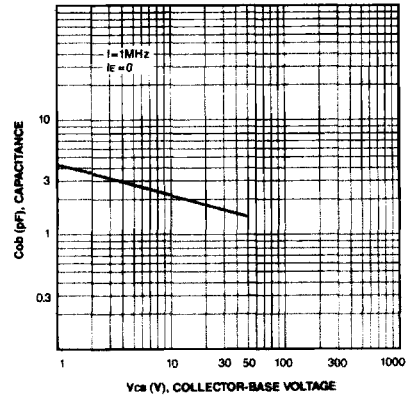
CURRENT GAIN BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



OUTPUT CAPACITANCE



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