

Transistors

2SD471A

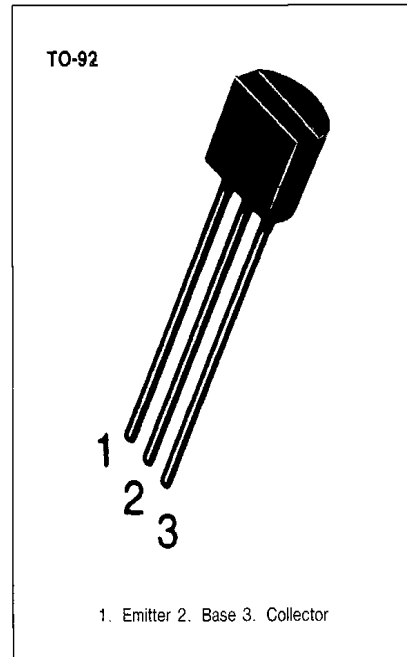


AUDIO FREQUENCY POWER AMPLIFIER

- Complement to KSB564A
- Collector Current $I_C = 1A$
- Collector Dissipation $P_C = 800mW$

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Collector Dissipation	P_C	800	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{stg}	-55 ~ 150	$^\circ C$



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

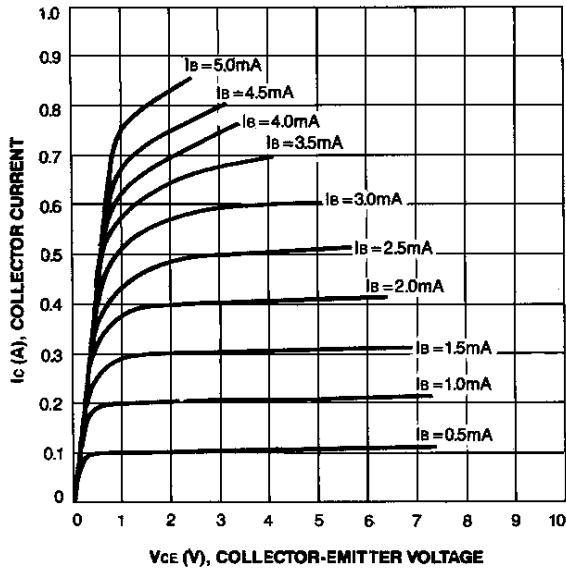
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	30			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 100\mu A, I_C = 0$	5			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 30V, I_E = 0$			0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = 1V, I_C = 100mA$	70		400	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 0.1A$			0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 1A, I_B = 0.1A$			1.2	V
Current Gain-Band width Product	f_T	$V_{CE} = 6V, I_C = 10mA$		130		MHz
Output Capacitance	C_{ob}	$V_{CB} = 6V, I_E = 0, f = 1MHz$		16		pF

h_{FE} CLASSIFICATION

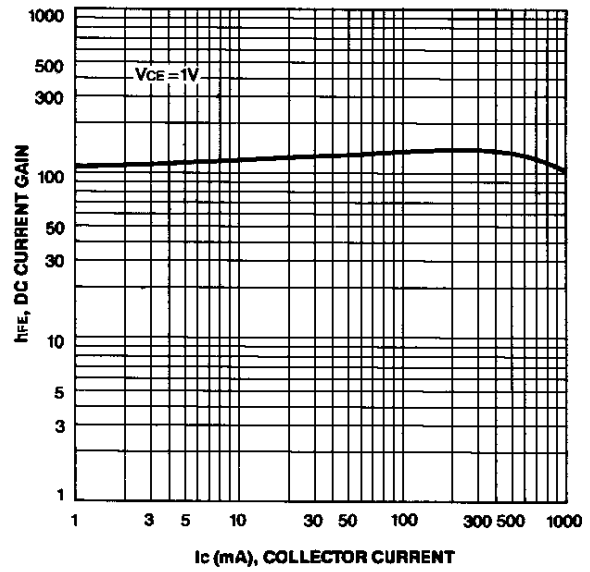
Classification	O	Y	G
h_{FE}	70-140	120-240	200-400



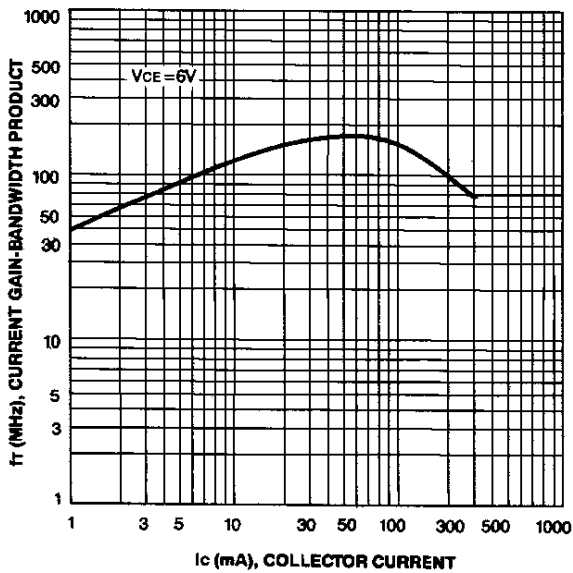
STATIC CHARACTERISTIC



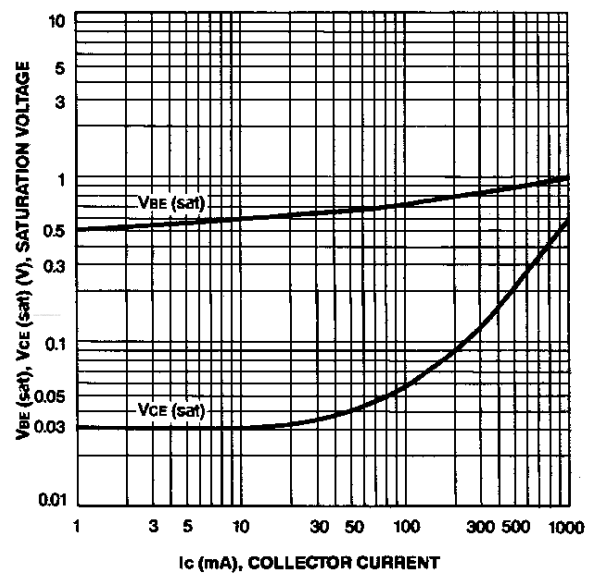
DC CURRENT GAIN



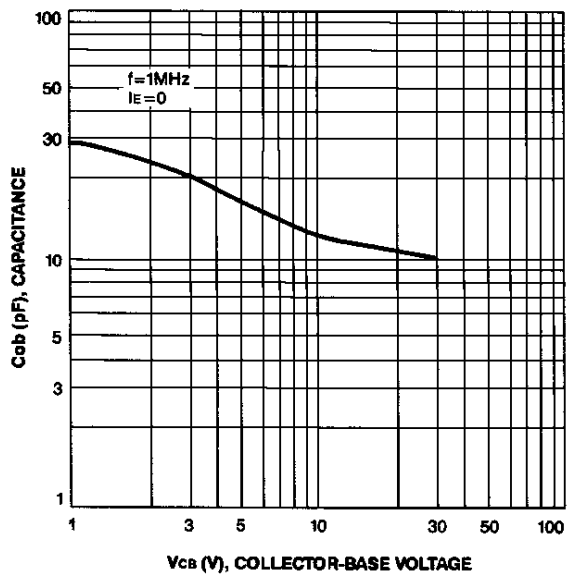
CURRENT GAIN-BANDWIDTH PRODUCT



**BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE**



COLLECTOR OUTPUT CAPACITANCE



SAFE OPERATING AREA

