

# Transistors

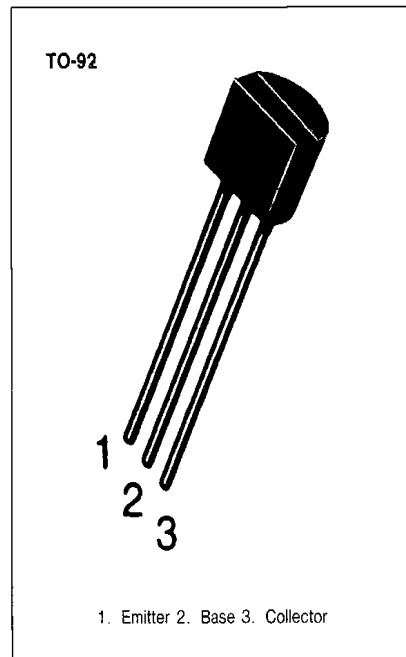
## 2SD471A

### 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 ( $T_a=25^\circ C$ )

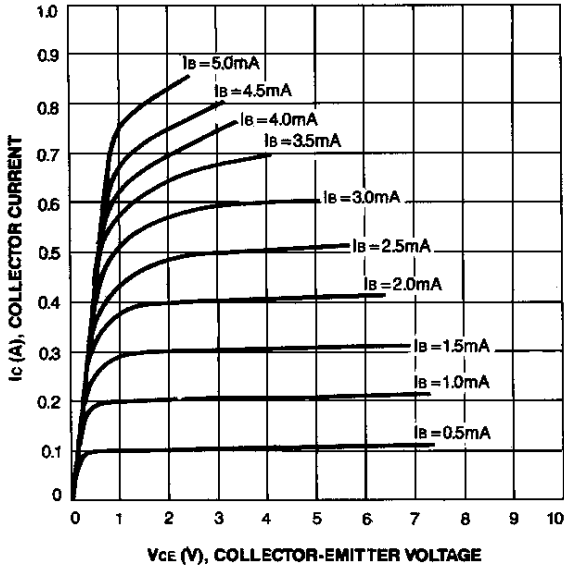
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=100\mu A, I_E=0$	40			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=10mA, I_B=0$	30			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=30V, I_E=0$			0.1	$\mu A$
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

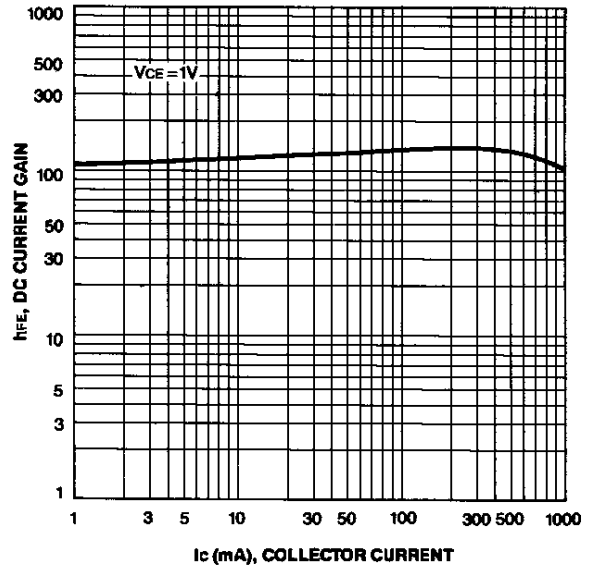
Classification	O	Y	G
$h_{FE}$	70-140	120-240	200-400



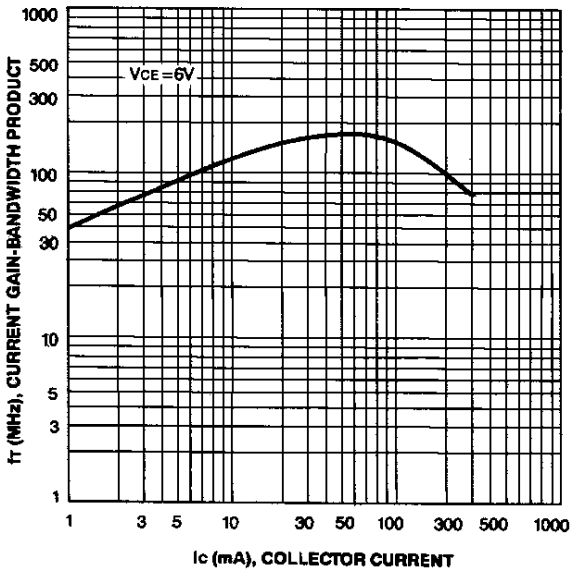
**STATIC CHARACTERISTIC**



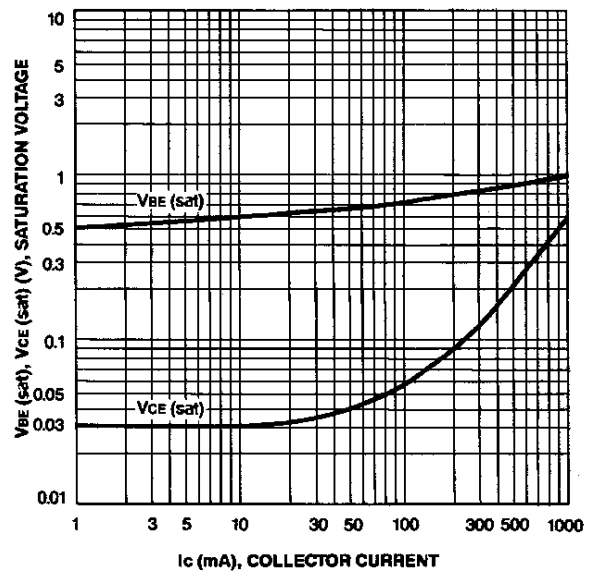
**DC CURRENT GAIN**



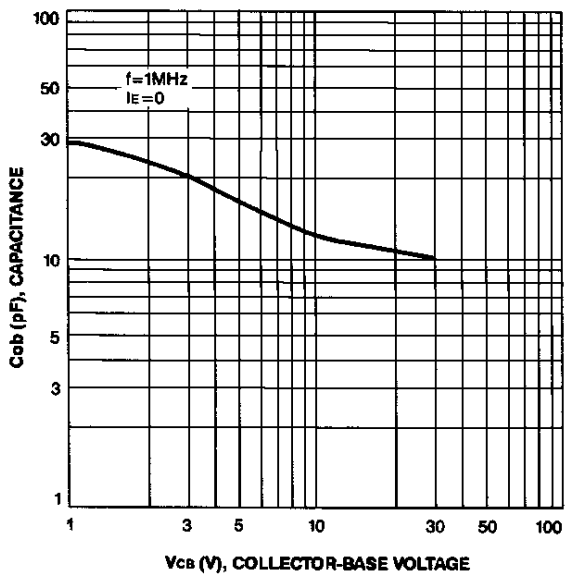
**CURRENT GAIN-BANDWIDTH PRODUCT**



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



**COLLECTOR OUTPUT CAPACITANCE**



**SAFE OPERATING AREA**

