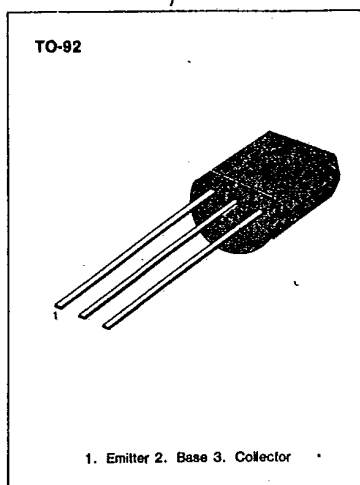


**KSD471A****NPN EPITAXIAL SILICON TRANSISTOR****AUDIO FREQUENCY POWER AMPLIFIER**

- 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	$V_{CB0}$	40	V
Collector-Emitter Voltage	$V_{CE0}$	30	V
Emitter-Base Voltage	$V_{EB0}$	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	$BV_{CB0}$	$I_C = 100\mu A, I_E = 0$	40			V
Collector-Emitter Breakdown Voltage	$BV_{CE0}$	$I_C = 10mA, I_B = 0$	30			V
Emitter-Base Breakdown Voltage	$BV_{EB0}$	$I_E = 100\mu A, I_C = 0$	5			V
Collector Cut-off Current	$I_{CB0}$	$V_{CB} = 30V, I_E = 0$			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**

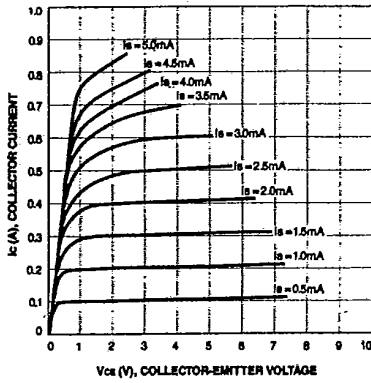
Classification	O	Y	G
$h_{FE}$	70-140	120-240	200-400

KSD471A

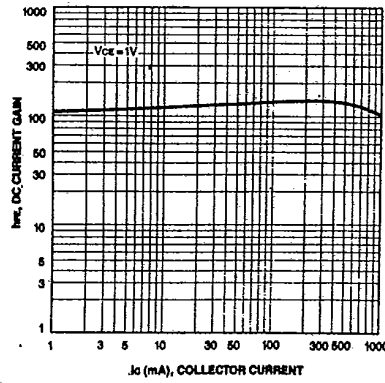
NPN EPITAXIAL SILICON TRANSISTOR

T-29-23

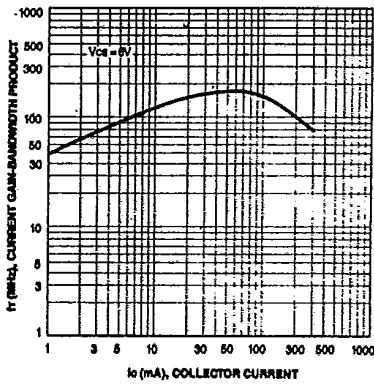
STATIC CHARACTERISTIC



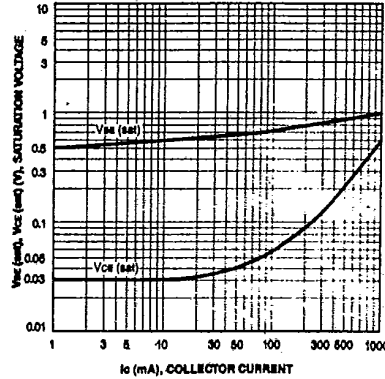
DC CURRENT GAIN



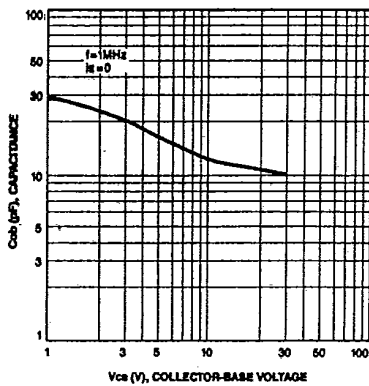
CURRENT GAIN-BANDWIDTH PRODUCT



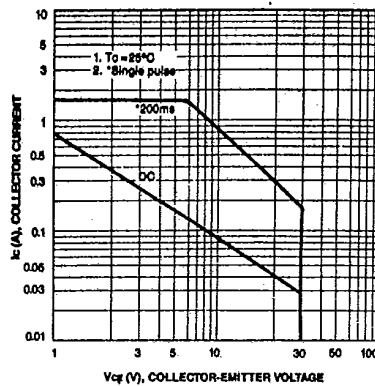
BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



SAFE OPERATING AREA



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