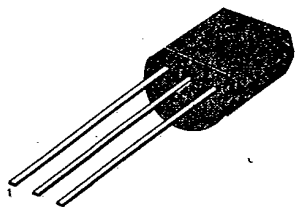
KSD471A NPN EPITAXIAL SILICON TRANSISTOR

AUDIO FREQUENCY POWER AMPLIFIER

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

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°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	Tj	150	°C
Storage Temperature	Tstg	−55 ~ 150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C)

Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=100μA, 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= 100μA, 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	Cob	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

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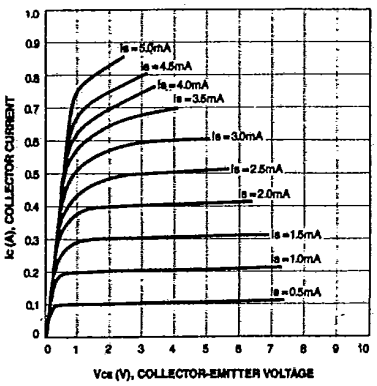
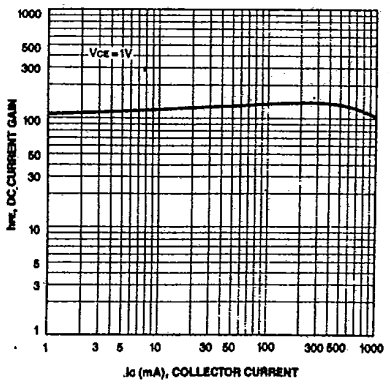
T-29-23

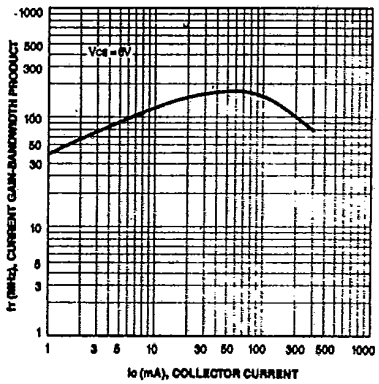
STATIC CHARACTERISTIC



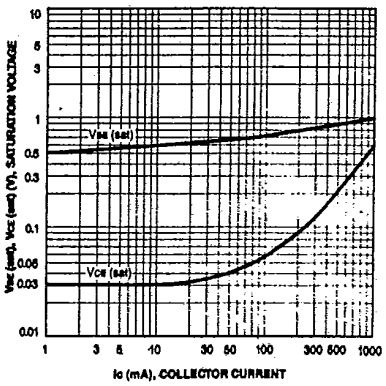
DC CURRENT GAIN



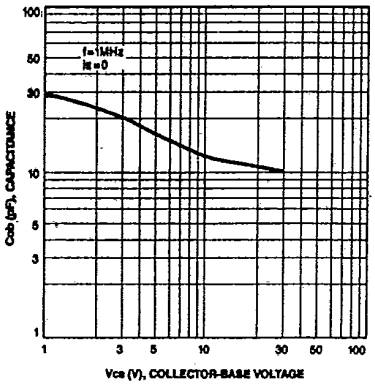
CURENT GAIN-BANDWIDTH PRODUCT



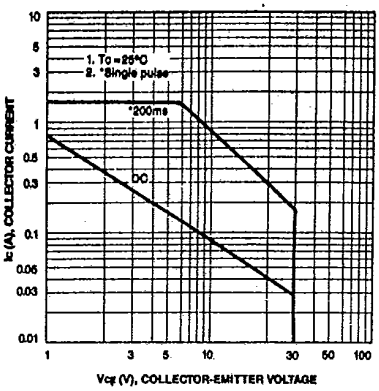
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



SAFE OPERATING AREA



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