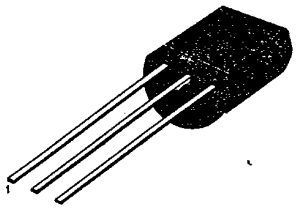
KSD227 NPN EPITAXIAL SILICON TRANSISTOR

LOW FREQUENCY POWER AMPLIFIER

- Complement to KSA642
- Collector Dissipation P_C=400mW

TO-92



1. Emitter 2. Base 3. Collector

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	300	mA
Collector Dissipation	P_C	400	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	30			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA, I_B=0	25			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=−10μA, I_C=0	5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=25V, 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}=1V, I_C=50mA	70		400	
Collector-Emitter Saturation Voltage	V_{CE} (sat)	I_C=300mA, I_B=30mA		0.14	0.4	V

h_{FE} CLASSIFICATION

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

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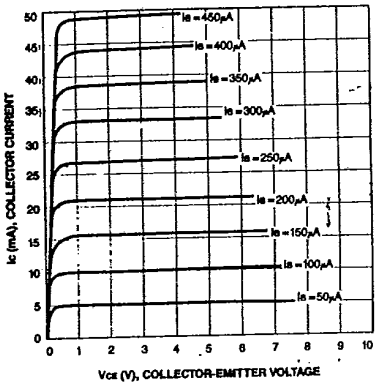
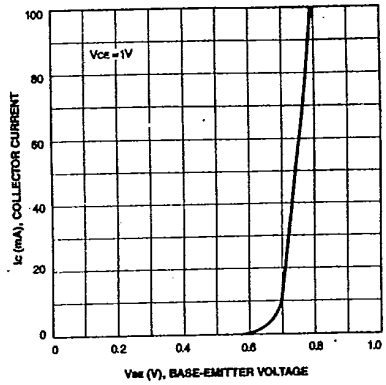
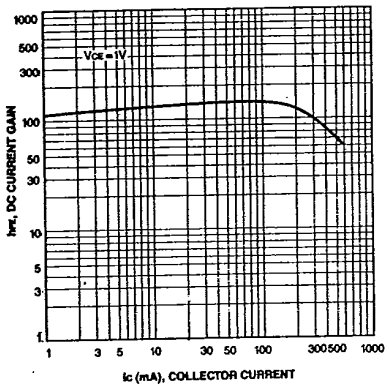
STATIC CHARACTERISTIC



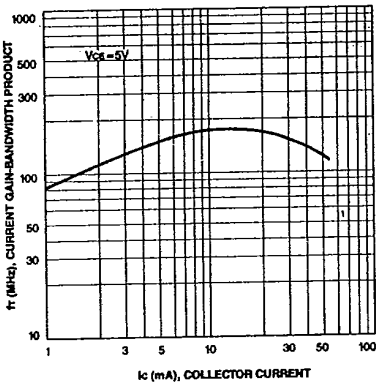
BASE-EMITTER ON VOLTAGE



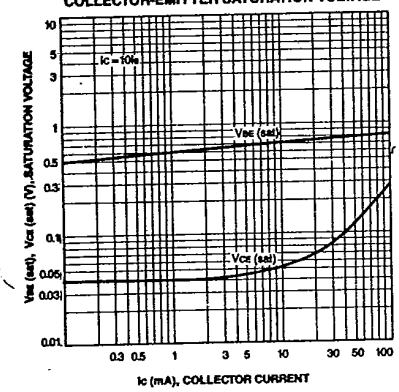
DC CURRENT GAIN



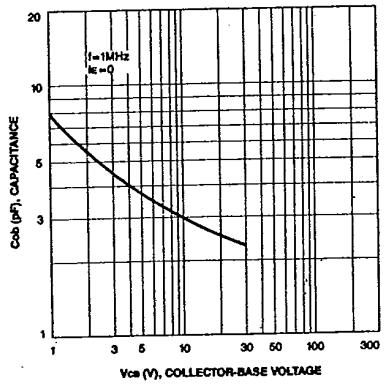
CURRENT GAIN-BANDWIDTH PRODUCT



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



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