

KSC3125

NPN EPITAXIAL SILICON TRANSISTOR

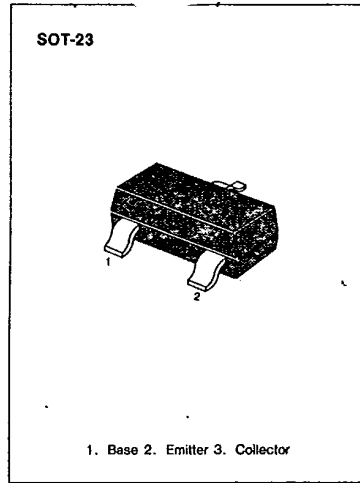
T-31-15

TV FINAL PICTURE AMPLIFIER APPLICATION

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CE0}	25	V
Emitter-Base Voltage	V _{EB0}	4	V
Collector Current	I _C	50	mA
Collector Dissipation	P _C	150	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 - 150	°C

• Refer to KSC388 for graphs

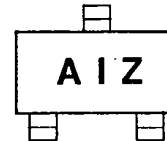


ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage		I _C = 1mA, I _B = 0	25			V
Collector Cutoff Current	I _{CB0}	V _{CB} = 30V, I _E = 0			0.1	uA
Emitter Cutoff Current	I _{EB0}	V _{EB} = 3V, I _C = 0			0.1	uA
DC Current Gain	h _{FE}	V _{CE} = 10V, I _C = 10mA	20	70	200	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = 15mA, I _B = 1.5mA			0.2	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C = 15mA, I _B = 1.5mA			1.5	V
Current Gain-Bandwidth Product	f _T	I _C = 10mA, V _{CE} = 10V	250	600		MHz
Output Capacitance	C _{ob}	V _{CB} = 10V, I _E = 0 f = 1MHz		1.1	1.6	pF

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Marking

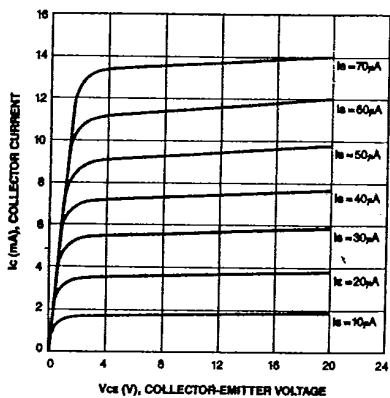


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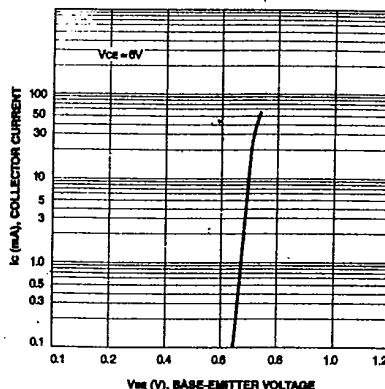
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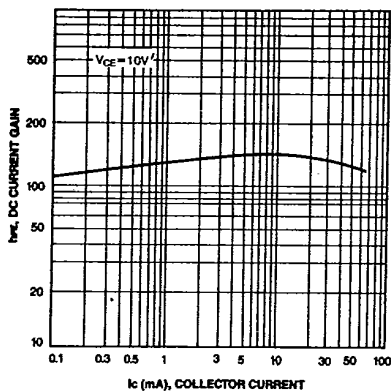
STATIC CHARACTERISTIC



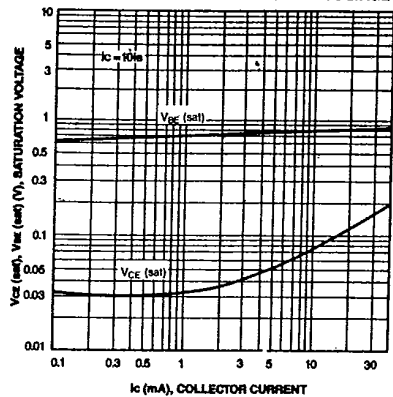
BASE-EMITTER ON VOLTAGE



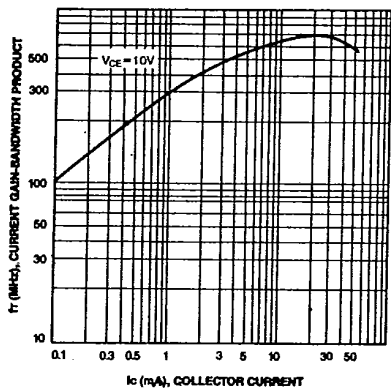
DC CURRENT GAIN



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



INPUT CAPACITANCE
COLLECTOR OUTPUT CAPACITANCE

