

**KSC2756**

**NPN EPITAXIAL SILICON TRANSISTOR**

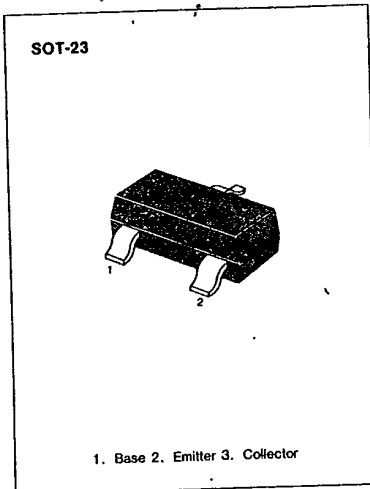
T-31-15

**MIXER FOR VHF TV TUNER**

• HIGH G<sub>ce</sub> (Typ. 23dB)

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub> = 25°C)**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>cb0</sub>	30	V
Collector-Emitter Voltage	V <sub>ce0</sub>	20	V
Emitter-Base Voltage	V <sub>eb0</sub>	4	V
Collector Current	I <sub>c</sub>	30	mA
Collector Dissipation	P <sub>c</sub>	150	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ 150	°C



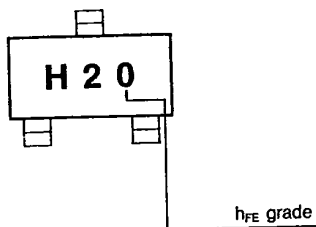
**ELECTRICAL CHARACTERISTICS (T<sub>a</sub> = 25°C)**

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Cutoff Current	I <sub>cb0</sub>	V <sub>cb</sub> = 20V, I <sub>e</sub> = 0			0.1	μA
DC Current Gain	h <sub>FE</sub>	V <sub>ce</sub> = 10V, I <sub>c</sub> = 5mA	60	120	240	
Collector Emitter Saturation Voltage	V <sub>ce(sat)</sub>	I <sub>c</sub> = 10mA, I <sub>b</sub> = 1mA			0.5	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>ce</sub> = 10V, I <sub>e</sub> = -5mA	500	850		MHz
Reverse Transfer Capacitance	C <sub>re</sub>	V <sub>cb</sub> = 10V, I <sub>e</sub> = 0, f = 1MHz		0.35	0.5	pF
Conversion Gain	G <sub>ce</sub>	V <sub>ce</sub> = 10V, I <sub>c</sub> = 3mA	15	23		dB
Noise Figure	NF	f <sub>RF</sub> = 200MHz, I <sub>F</sub> = 58MHz V <sub>ce</sub> = 10V, I <sub>c</sub> = 3mA f <sub>RF</sub> = 200MHz, I <sub>F</sub> = 58MHz		6.5		dB

**h<sub>FE</sub> CLASSIFICATION**

Classification	R	O	Y
h <sub>FE</sub>	60-120	90-180	120-240

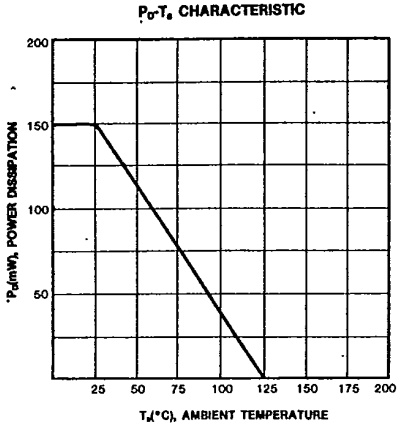
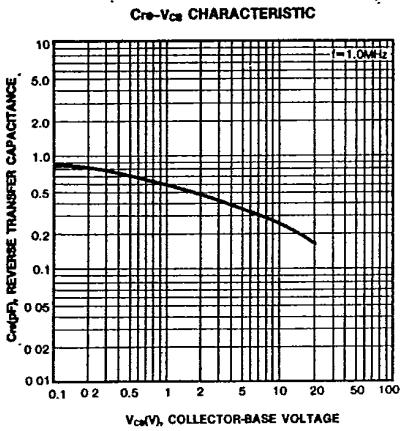
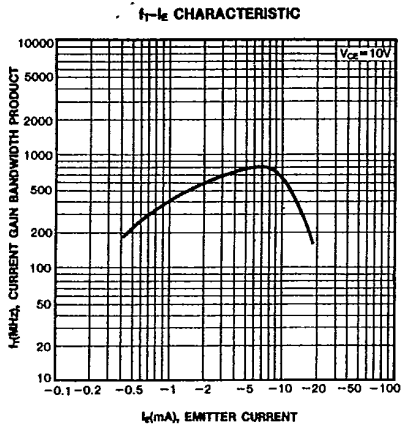
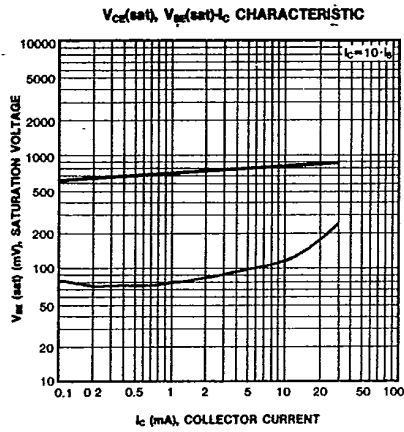
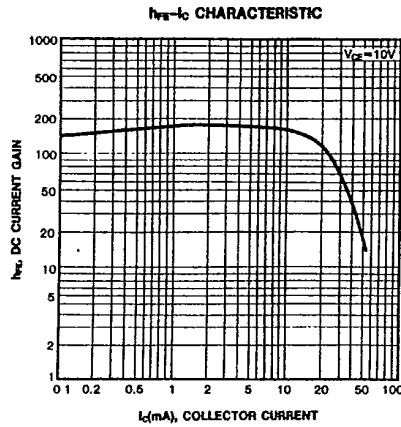
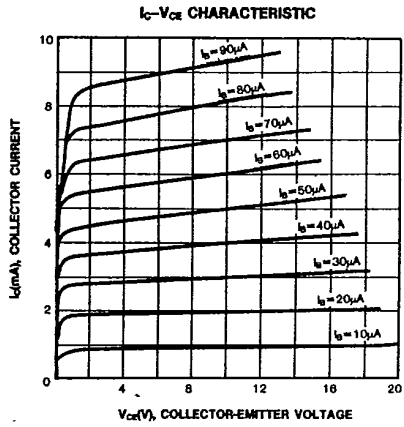
**Marking**



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