

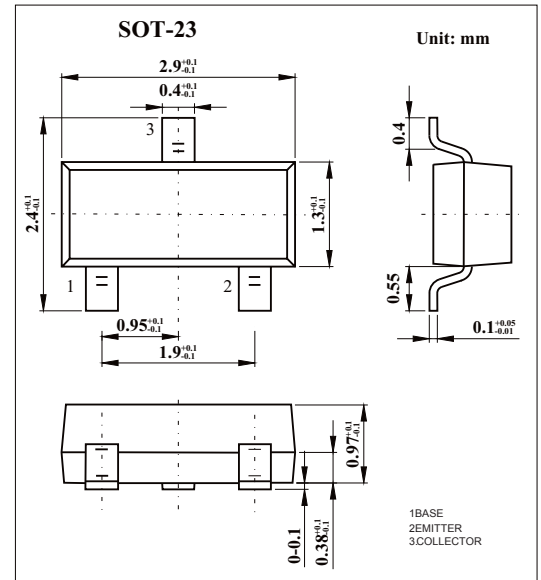
SOT-23 Plastic-Encapsulate Transistors

Features

- High current gain bandwidth product.
- power dissipation.(PC=200mW)
- TRANSISTOR (NPN)

MECHANICAL DATA

- Case: SOT-23 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CBO}	30	V
Collector to Emitter Voltage	V _{CEO}	15	V
Emitter to Base Voltage	V _{EBO}	5	V
Collector Current to Continuous	I _c	50	mA
Collector Power Dissipation	P _c	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to 150	°C

Electrical Specification(T_A=25°C unless otherwise specified)

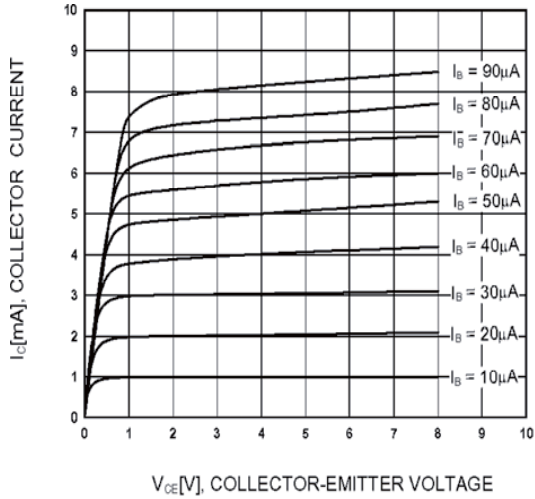
Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector to base breakdown voltage	V _{(BR)CBO}	I _c = 100 μA, I _E =0	30			V
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _c = 1mA, I _B =0	15			V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E =100 μA, I _c =0	5			V
Collector cut to off current	I _{CBO}	V _{CB} =12V, I _E =0			0.05	μA
Emitter cut to off current	I _{EBO}	V _{EB} = 3V, I _c =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =5V, I _c = 1mA	70		190	
Collector to emitter saturation voltage	V _{CE(sat)}	I _c =10mA, I _B = 1mA			0.5	V
Base to emitter saturation voltage	V _{BE(sat)}	I _c =10mA, I _B = 1mA			1.4	V
Transition frequency	f _T	V _{CE} =5V, I _c = 5mA, f=400MHz	600			MHz

■ Marking

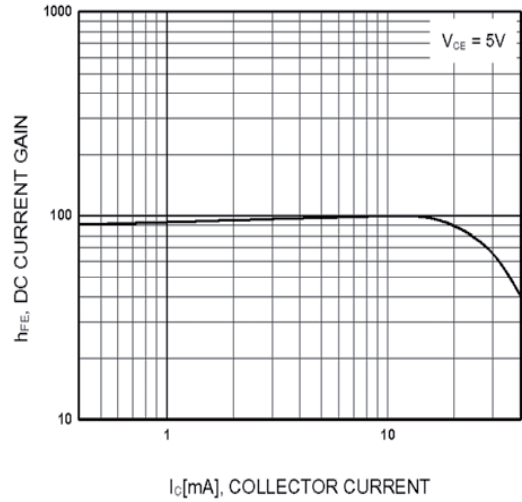
Marking	J8
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RATINGS AND CHARACTERISTIC CURVES

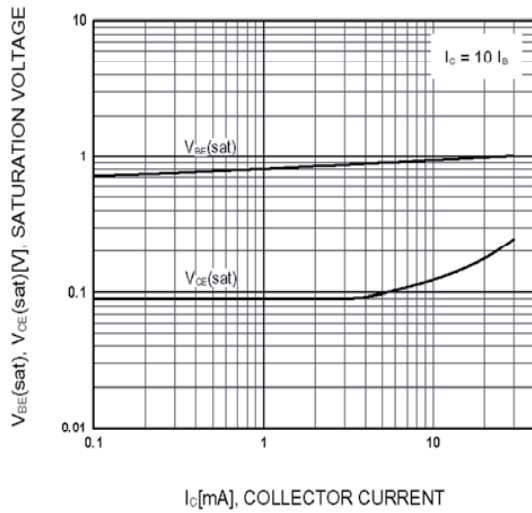
Typical Characteristics



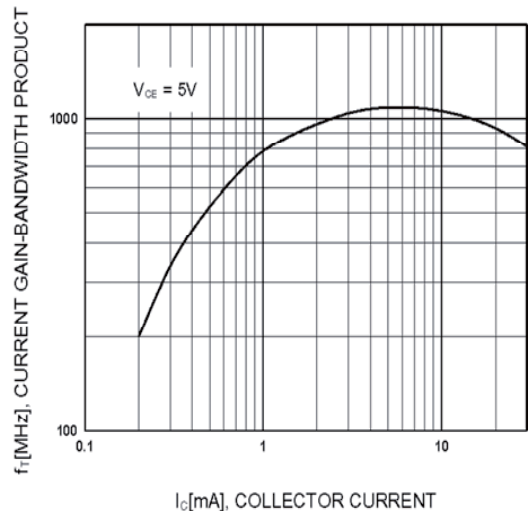
Static Characteristic



DC Current Gain



**Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage**



Current Gain Bandwidth Product