

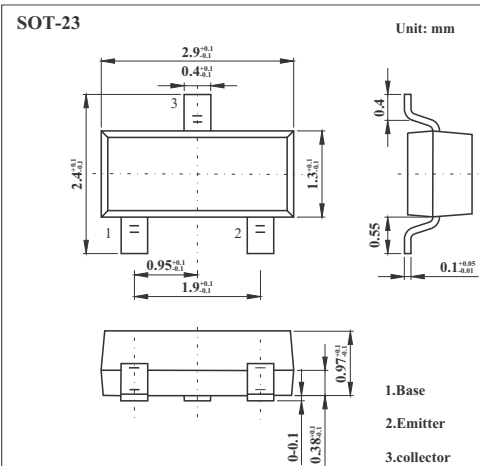
## SOT-23 Plastic-Encapsulate Transistors

### Features

- Epitaxial planar die construction.
- PNP Transistors

### MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector- Base Voltage	V <sub>CB0</sub>	-40	V
Collector - Emitter Voltage	V <sub>CEO</sub>	-40	V
Emitter - Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current- Continuous	I <sub>C</sub>	-0.2	A
Collector Dissipation	P <sub>C</sub>	0.3	W
Junction and Storage Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 to 150	°C

## Electrical Specification(T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector - base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = -100 μA, I <sub>E</sub> =0	-40			V
Collector - emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = -1 mA, I <sub>B</sub> =0	-40			V
Emitter- base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = -100 μA, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = -40 V, I <sub>E</sub> =0			-0.1	μ A
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = -40 V, V <sub>BE(off)</sub> =-3V			-50	nA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = -5V, I <sub>C</sub> =0			-0.1	μ A
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = -1V, I <sub>C</sub> = -10mA	100		300	
		V <sub>CE</sub> = -1V, I <sub>C</sub> = -50mA	60			
Collector- emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-50 mA, I <sub>B</sub> = -5mA			-0.3	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =-50 mA, I <sub>B</sub> = -5mA			-0.95	V
Delay time	t <sub>d</sub>	V <sub>CC</sub> =-3.0V, V <sub>BE</sub> =0.5V			35	ns
Rise time	t <sub>r</sub>	I <sub>C</sub> =-10mA, I <sub>B1</sub> =-1.0mA			35	
Storage time	t <sub>s</sub>	V <sub>CC</sub> =-3.0V, I <sub>C</sub> =-10mA			225	ns
Fall time	t <sub>f</sub>	I <sub>B1</sub> =I <sub>B2</sub> =-1.0mA			75	
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -20V, I <sub>C</sub> = -10mA, f=100MHz	250			MHz

### Classification OF h<sub>FE(1)</sub>

Rank	L	HL
Range	100-200	200-300

Marking	2A
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## ■ Typical Characteristics

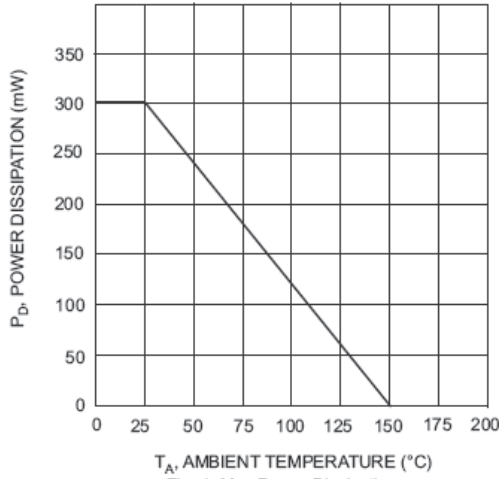


Fig. 1, Max Power Dissipation vs Ambient Temperature

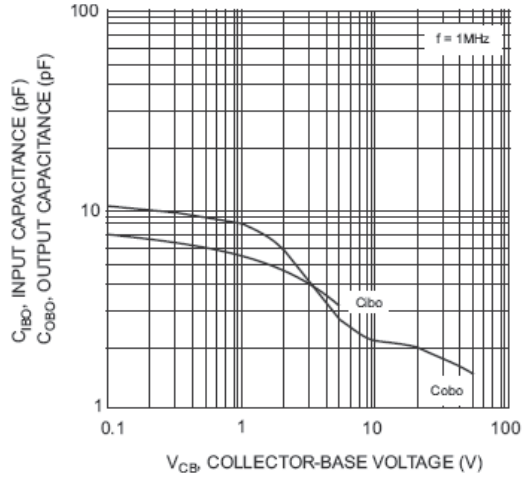


Fig. 2, Input and Output Capacitance vs. Collector-Base Voltage

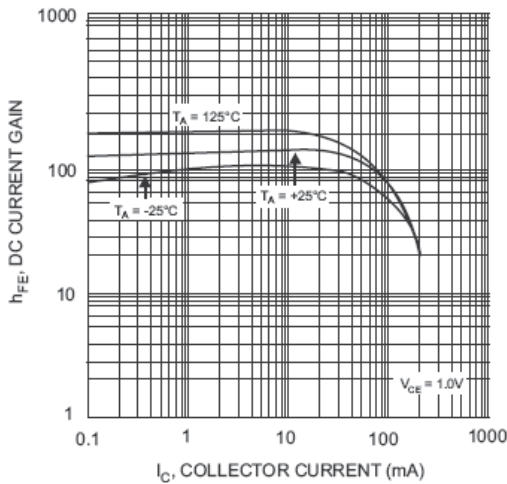


Fig. 3, Typical DC Current Gain vs Collector Current

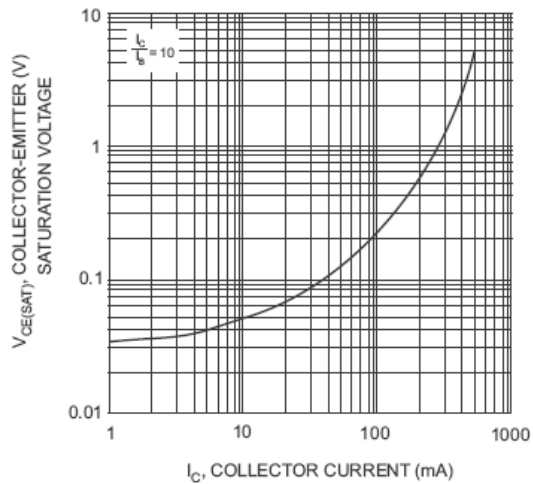


Fig. 4, Typical Collector-Emitter Saturation Voltage vs. Collector Current

