

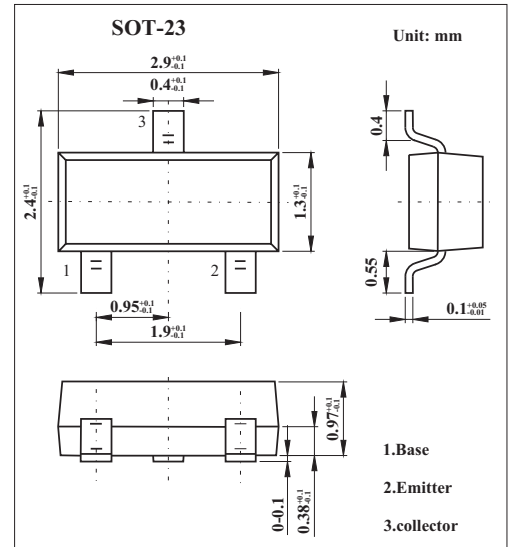
## SOT-23 Plastic-Encapsulate Transistors

### FEATURES

- TRANSISTOR (NPN)

### MECHANICAL DATA

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



### MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector -Base Voltage	30	V
V <sub>CEO</sub>	Collector-Emitter Voltage	15	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Continuous Collector Current	0.7	A
P <sub>C</sub>	Collector Dissipation	0.15	W
R <sub>θJA</sub>	Thermal Resistance from Junction to Ambient	833	°C/ W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CB0</sub>	I <sub>C</sub> =10uA, I <sub>E</sub> =0	30			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	15			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10uA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> =20V, I <sub>E</sub> =0			1	uA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> =0			1	uA
DC current gain	h <sub>FE</sub> *	V <sub>CE</sub> =1V, I <sub>C</sub> =150mA	250		800	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub> *	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA			0.5	V
Base-emitter voltage	V <sub>BE</sub> *	V <sub>CE</sub> =1V, I <sub>C</sub> =150mA			1	V
Transition frequency	f <sub>T</sub> *	V <sub>CE</sub> =1V, f=150MHz		250		MHz

\* Pulse test: Pulse Width ≤300μs, Duty Cycle≤ 2.0%.

### CLASSIFICATION of h<sub>FE</sub>

Rank	D	E
Range	250-500	400-800
Marking	ND	NE