


**SOT-23 BIPOLAR TRANSISTORS  
TRANSISTOR(PNP)**

**FEATURES**

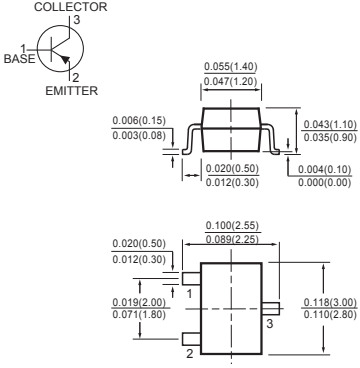
- \* Power dissipation  
P<sub>CM</sub> : □ 0.2 □ W(T<sub>amb</sub>=25°C)
- \* Collector current  
I<sub>CM</sub> : □ -0.1 □ A
- \* Collector-base voltage  
V<sub>(BR)CBO</sub> : □ -60 □ V
- \* Operating and storage junction temperature range  
T<sub>J</sub>, T<sub>stg</sub>: -55°C to +150°C

**MECHANICAL DATA**

- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- Weight: 0.008 gram



**SOT-23**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

**ELECTRICAL CHARACTERISTICS ( @ T<sub>A</sub> = 25°C unless otherwise noted )**

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS
Collector - Base Breakdown Voltage(I <sub>C</sub> = -100 μA, I <sub>E</sub> =0)	V <sub>(BR)CBO</sub>	-60	-	-	V
Collector - Emitter Breakdown Voltage(I <sub>C</sub> = -1mA, I <sub>B</sub> =0)	V <sub>(BR)CEO</sub>	-50	-	-	V
Emitter - Base Breakdown Voltage(I <sub>E</sub> = -100 μA, I <sub>C</sub> =0)	V <sub>(BR)EBO</sub>	-5	-	-	V
Collector Cut - Off Current (V <sub>CB</sub> = -60V, I <sub>E</sub> =0)	I <sub>CBO</sub>	-	-	-0.1	μA
Emitter Cut - Off Current(V <sub>EB</sub> = -5V, I <sub>C</sub> =0)	I <sub>EBO</sub>	-	-	-0.1	μA
DC Current Gain(V <sub>CE</sub> = -6V, I <sub>C</sub> = -1mA)	h <sub>FE</sub>	90	-	600	-
Collector - Emitter Saturation Voltage(I <sub>C</sub> =-100 mA, I <sub>B</sub> = -10mA)	V <sub>CE(sat)</sub>	-	-	-0.3	V
Base - Emitter Voltage(I <sub>C</sub> =-1mA, V <sub>CE</sub> = -6mA)	V <sub>BE</sub>	-	-	-0.68	V
Tiansion Frequency(V <sub>CE</sub> = -6V, I <sub>C</sub> = -10mA)	f <sub>r</sub>	180	-	-	MHz

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

Marking	M4	M5	M6	M7
Range	90-180	135-270	200-400	300-600

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