



# SOT-23 BIPOLAR TRANSISTORS TRANSISTOR(PNP)

## **FEATURES**

\* Power dissipation

150 Рсм:

mW(Tamb=25°C) \* Collector current

Ісм: 150 mΑ

\* Collector-base voltage

V<sub>(BR)</sub>CBO: 60

\* Operating and storage junction temperature range T<sub>J</sub>,Tstg: -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

# 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%.

# SOT-23 Dimensions in inches and (millimeters)

# ELECTRICAL CHARACTERISTICS ( @ TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS
Collector-base breakdown voltage (I <sub>C</sub> = 100μA, 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> = 100μA, 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	μА
Emitter cut-off current (V <sub>EB</sub> = 5V, I <sub>C</sub> =0)	I <sub>EBO</sub>	-	-	0.1	μА
DC current gain (V <sub>CE</sub> = 6V, I <sub>C</sub> = 2mA)	h <sub>FE</sub>	70	-	700	-
Collector-emitter saturation voltage (I <sub>C</sub> = 100mA, I <sub>B</sub> = 10mA)	V <sub>CE(sat)</sub>	-	0.1	0.25	V
Transition frequency (V <sub>CE</sub> = 10V, I <sub>C</sub> = 1mA)	f <sub>T</sub>	80	-	-	MHz
Output capacitance (V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f= 1MHz)	Cob	-	2.0	3.5	pF
Noise figure (V <sub>CE</sub> = 6V, I <sub>C</sub> = 0.1mA, f= 1KHz, Rg= $10K\Omega$ )	NF	-	1.0	10	dB

### CLASSIFICATION OF hFE

RANK	0	Y	GR	BL
Range	70-140	120-240	200-400	350-700
Marking	LO	LY	LG	LL

2006-3

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