

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

FEATURES

* Power dissipation
 $P_{CM} : 0.25 \text{ W (Tamb = 25}^\circ\text{C)}$

MECHANICAL DATA

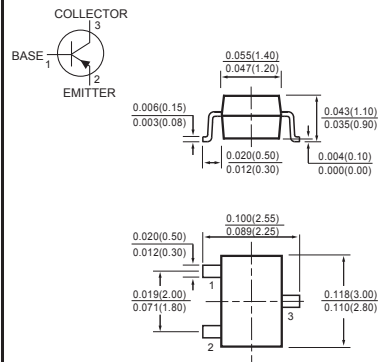
* Case: Molded plastic
* Epoxy: UL 94V-O rate flame retardant
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.008 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



SOT-23



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	VALUE	UNITS
Collector-base voltage	V_{CBO}	-32	V
Collector-emitter voltage	V_{CEO}	-32	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current-continuous	I_C	-0.1	A
Total device dissipation	P_c	0.25	W
Junction and storage temperature	T_J, T_{stg}	-55 - 150	°C

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

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS
Collector-base breakdown voltage ($I_C = -10\mu\text{A}, I_E = 0$)	$V_{(BR)CBO}$	-32	-	-	V
Collector-emitter breakdown voltage ($I_C = -1\text{mA}, I_B = 0$)	$V_{(BR)CEO}$	-32	-	-	V
Emitter-base breakdown voltage ($I_E = -10\mu\text{A}, I_C = 0$)	$V_{(BR)EBO}$	-5	-	-	V
Collector cut-off current ($V_{CB} = -32\text{V}, I_E = 0$)	I_{CBO}	-	-	-0.02	μA
Collector cut-off current ($V_{EB} = -4\text{V}, I_E = 0$)	I_{EBO}	-	-	-0.02	μA
DC current gain ($V_{CE} = -5\text{V}, I_C = -10\mu\text{A}$)	h_{FE}	40	-	-	-
DC current gain ($V_{CE} = -5\text{V}, I_C = -2\text{mA}$)		250	-	460	-
DC current gain ($V_{CE} = -1\text{V}, I_C = -50\text{mA}$)		100	-	-	-
Collector-emitter saturation voltage ($I_C = -10\text{mA}, I_B = -0.25\text{mA}$)	$V_{CE(sat)}$	-0.06	-	-0.25	V
Collector-emitter saturation voltage ($I_C = -50\text{mA}, I_B = -1.25\text{mA}$)	$V_{CE(sat)}$	-0.12	-	-0.55	V
Base-emitter saturation voltage ($I_C = -10\text{mA}, I_B = -0.25\text{mA}$)	$V_{BE(sat)}$	-0.6	-	-0.85	V
Base-emitter saturation voltage ($I_C = -50\text{mA}, I_B = -1.25\text{mA}$)		-0.68	-	-1.05	V
Base-emitter voltage ($V_{CE} = -5\text{V}, I_C = -10\mu\text{A}$)	$V_{BE(ON)}$	-	-0.55	-	V
Base-emitter voltage ($V_{CE} = -5\text{V}, I_C = -2\text{mA}$)		-0.6	-	-0.75	V
Base-emitter voltage ($V_{CE} = -1\text{V}, I_C = -50\text{mA}$)		-	-0.72	-	V
Transition frequency ($V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$)	f_T	100	-	-	MHz
Collector capacitance ($V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$)	C_c	-	4.5	-	pF
Emitter capacitance ($V_{EB} = -0.5\text{V}, I_C = 0, f = 1\text{MHz}$)	C_e	-	11	-	pF

Marking	BC
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