

SOT-23 BIPOLAR TRANSISTORS
TRANSISTOR(NPN)

FEATURES

- * Power dissipation
 $P_{CM} : \square \quad 0.25 \square \quad W$ ($T_{amb}=25^{\circ}C$)
- * Collector current
 $I_{CM} : \square \quad 0.1 \square \quad A$
- * Collector-base voltage
 $V_{(BR)CBO} : \square \quad 32 \square \quad V$
- * Operating and storage junction temperature range
 $T_J, T_{stg} : -55^{\circ}C$ to $+150^{\circ}C$

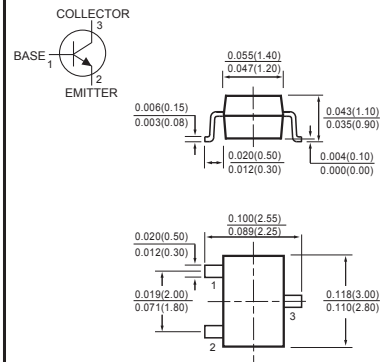
MECHANICAL DATA

- * 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 $25^{\circ}C$ 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)

ELECTRICAL CHARACTERISTICS (@ $T_A = 25^{\circ}C$ unless otherwise noted)

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNITS
Collector-base breakdown voltage ($I_C = 10\mu A, I_E = 0$)	$V_{(BR)CBO}$	32	-	-	V
Collector-emitter breakdown voltage ($I_C = 1mA, I_B = 0$)	$V_{(BR)CEO}$	32	-	-	V
Emitter-base breakdown voltage ($I_E = 10\mu A, I_C = 0$)	$V_{(BR)EBO}$	5	-	-	V
Collector cut-off current ($V_{CB} = 32V, I_E = 0$)	I_{CBO}	-	-	0.02	μA
Collector cut-off current ($V_{EB} = 4V, I_C = 0$)	I_{EBO}	-	-	0.02	μA
DC current gain ($V_{CE} = 5V, I_C = 10\mu A$)	h_{FE}	40	-	-	-
DC current gain ($V_{CE} = 5V, I_C = 2mA$)		250	-	460	-
DC current gain ($V_{CE} = 5V, I_C = 50mA$)		100	-	-	-
Collector-emitter saturation voltage ($I_C = 10mA, I_B = 0.25mA$)	$V_{CE(sat)}$	-	-	0.35	V
Collector-emitter saturation voltage ($I_C = 50mA, I_B = 1.25mA$)		-	-	0.55	V
Base-emitter saturation voltage ($I_C = 10mA, I_B = 0.25mA$)	$V_{BE(sat)}$	-	-	0.85	V
Base-emitter saturation voltage ($I_C = 50mA, I_B = 1.25mA$)		-	-	1.05	V
Base-emitter voltage ($V_{CE} = 5V, I_C = 2\mu A$)	V_{BE}	0.55	-	0.75	V
Transition frequency ($V_{CE} = 5V, I_C = 10mA, f = 100MHz$)	f_T	100	-	-	MHz
Output capacitance ($V_{CB} = 10V, I_E = 0, f = 1MHz$)	C_{ob}	-	-	5	pF

Marking

AC

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