

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

FEATURES

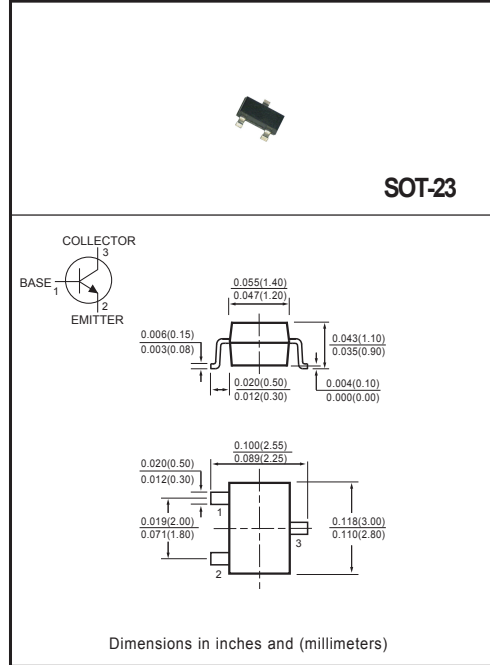
- * Power dissipation
 $P_{CM} : \square \quad 0.2 \square \quad W(T_{amb}=25^{\circ}C)$
- * Collector current
 $I_{CM} : \square \quad 0.15 \square \quad A$
- * Collector-base voltage
 $V_{(BR)CBO} : \square \quad 60 \square \quad V$
- * Operating and storage junction temperature range
 $T_{J, Tstg} : -55^{\circ}C \text{ to } +150^{\circ}C$

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

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Collector-base breakdown voltage ($I_C = 50\mu A, I_E = 0$)	$V_{(BR)CBO}$	60	-	-	V
Collector-emitter breakdown voltage ($I_C = 1mA, I_B = 0$)	$V_{(BR)CEO}$	50	-	-	V
Emitter-base breakdown voltage ($I_E = 50\mu A, I_C = 0$)	$V_{(BR)EBO}$	7	-	-	V
Collector cut-off current ($V_{CB} = 60V, I_E = 0$)	I_{CBO}	-	-	0.1	μA
Emitter cut-off current ($V_{EB} = 7V, I_C = 0$)	I_{EBO}	-	-	0.1	μA
DC current gain ($V_{CE} = 6V, I_C = 1mA$)	h_{FE}	120	-	560	-
Collector-emitter saturation voltage ($I_C = 50mA, I_B = 5mA$)	$V_{CE(sat)}$	-	-	0.4	V
Transition frequency ($V_{CE} = 12V, I_C = 2mA, f = 100MHz$)	f_T	150	-	-	MHz

CLASSIFICATION OF $h_{FE(1)}$

RANK	Q	R	Y
Range	120-270	180-390	270-560
Marking	BQ	BR	BS

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