

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

FEATURES

- * Power dissipation
 $P_{CM} : \square \quad 0.225 \square \quad W$ ($T_{amb}=25^{\circ}C$) Note1
- * Collector current
 $I_{CM} : \square \quad -0.1 \square \quad A$
- * Collector-base voltage
 $V_{(BR)CBO} : \square \quad -50 \square \quad V$
- * Operating and storage junction temperature range
 $T_{J, Tstg} : -55^{\circ}C$ to $+150^{\circ}C$

MECHANICAL DATA

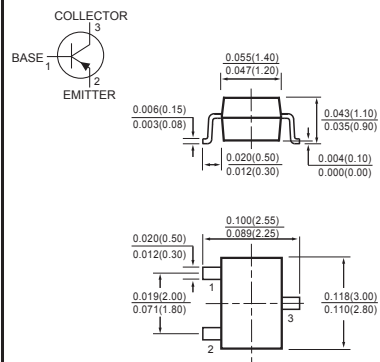
- * Case: Molded plastic
- * Epoxy: UL 94V-O rate flame retardant
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.008 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at $25^{\circ}C$ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, 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	MAX	UNITS
Collector - base breakdown voltage ($I_C = -10\mu A, I_E = 0$)	$V_{(BR)CBO}$	-50	-	V
Collector - emitter breakdown voltage ($I_C = -10mA, I_B = 0$)	$V_{(BR)CEO}$	-45	-	V
Emitter - base breakdown voltage ($I_E = -10\mu A, I_C = 0$)	$V_{(BR)EBO}$	-5	-	V
Collector cut - off current ($V_{CB} = -45V, I_E = 0$)	I_{CBO}	-	-0.1	μA
Collector cut - off current ($V_{CE} = -40V, I_B = 0$)	I_{CEO}	-	-0.1	μA
Emitter cut - off current ($V_{EB} = -5V, I_C = 0$)	I_{EBO}	-	-0.1	μA
DC current gain ($V_{CE} = -5V, I_C = -2mA$)	$h_{FE(1)}$	125	250	-
Collector - emitter saturation voltage ($I_C = -100mA, I_B = -5mA$)	$V_{CE(sat)}$	-	-0.5	V
Base - emitter saturation voltage ($I_C = -100mA, I_B = -10mA$)	$V_{BE(sat)}$	-	-1.1	V
Transition frequency ($V_{CE} = -5V, I_C = -10mA, f = 100MHz$)	f_T	100	-	MHz

DEVICE MARKING

BC857A	3E
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Notes: 1. Transistor mounted on an FR4 Printed-circuit board.
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

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