

# SOT-23 BIPOLAR TRANSISTORS TRANSISTOR(PNP)

#### **FEATURES**

\* Power dissipation Pcm:

0.225 W (Tamb=25°C) Note1

\* Collector current

-0.1 A

\* Collector-base voltage

V<sub>(BR)CBO</sub>: -80 V

\* Operating and storage junction temperature range T<sub>J</sub>,Tstg: -55°C to +150°C

#### **MECHANICAL DATA**

\* Case: Molded plastic

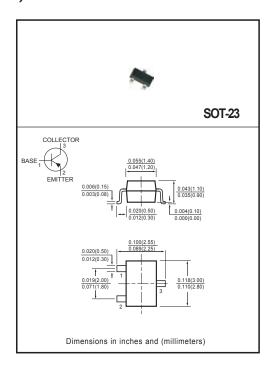
\* Epoxy: UL 94V-O rate flame retardant

\* Lead: MIL-STD-202E method 208C guaranteed

\* Mounting position: Any \* Weight: 0.008 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^{\circ}$ 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** ( @ TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	MIN	MAX	UNITS
Collector-base breakdown voltage (I <sub>C</sub> = -10μA, I <sub>E</sub> =0)	V <sub>(BR)CBO</sub>	-80	-	V
Collector-emitter breakdown voltage (I <sub>C</sub> = -10mA, I <sub>B</sub> =0)	V <sub>(BR)CEO</sub>	-65	-	V
Emitter-base breakdown voltage (I <sub>E</sub> = -10μA, I <sub>C</sub> =0)	V <sub>(BR)EBO</sub>	-5	-	V
Collector cut-off current (V <sub>CB</sub> = -70V, I <sub>E</sub> =0)	I <sub>CBO</sub>	-	-0.1	μА
Collector cut-off current (V <sub>CE</sub> = -60V, I <sub>B</sub> =0)	I <sub>CEO</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> = -5V, I <sub>C</sub> = -2mA)	h <sub>FE(1)</sub>	125	250	-
Collector-emitter saturation voltage (I <sub>C</sub> = -100mA, I <sub>B</sub> = -5mA)	V <sub>CE(sat)</sub>	-	-0.5	V
Base-emitter saturation voltage (I <sub>C</sub> = -100mA, I <sub>B</sub> = -10mA)	V <sub>BE(sat)</sub>	-	-1.1	V
Transition frequency (V <sub>CE</sub> = -5V, I <sub>C</sub> = -10mA, f= 100MHz)	f⊤	100	-	MHz

#### DEVICE MARKING

BC856A	3A

Notes: 1. Transistor mounted on an FR4 Printed-circuit board.

2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

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