

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

## **FEATURES**

\* Power dissipation Рсм:

0.225 W (Tamb=25°C) Note1

\* Collector current Ісм:

-0.1

\* Collector-base voltage

-30 V(BR)CBO:

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

#### **MECHANICAL DATA**

\* Case: Molded plastic

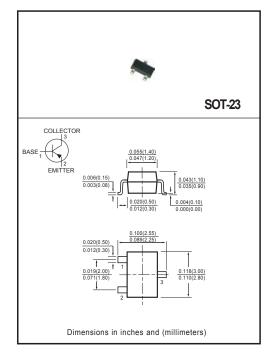
\* Epoxy: UL 94V-O rate flame retardant

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

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

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °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> | -30 | -    | V     |
| Collector-emitter breakdown voltage (I <sub>C</sub> = -10mA, I <sub>B</sub> =0)       | V <sub>(BR)CEO</sub> | -30 | -    | 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> = -25V, I <sub>E</sub> =0)                 | I <sub>CBO</sub>     | -   | -0.1 | μА    |
| Collector cut-off current (V <sub>CE</sub> = -25V, 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>   | 420 | 800  | -     |
| 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**

| BC858C | 3L |
|--------|----|

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

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