

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

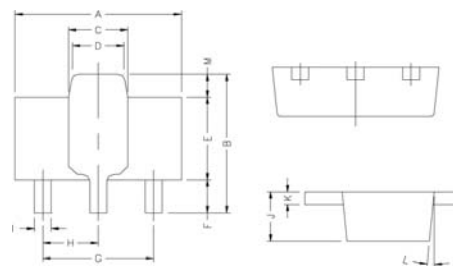
DESCRIPTION

The BCPA94 is designed for application requires high voltage.

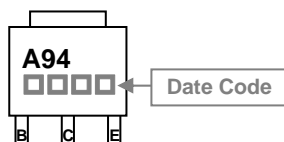
SOT-89

FEATURES

- High Voltage : $V_{CE0}=400V$ (min) at $I_C=1mA$
- High Current gain : $I_C=300mA$ at $25^\circ C$
- Complementary with BCPA44



MARKING



| REF. | Millimeter | | REF. | Millimeter | |
|------|------------|------|------|------------|------|
| | Min. | Max. | | Min. | Max. |
| A | 4.4 | 4.6 | G | 3.00 | REF. |
| B | 4.05 | 4.25 | H | 1.50 | REF. |
| C | 1.50 | 1.70 | I | 0.40 | 0.52 |
| D | 1.30 | 1.50 | J | 1.40 | 1.60 |
| E | 2.40 | 2.60 | K | 0.35 | 0.41 |
| F | 0.89 | 1.20 | L | 5° | TYP. |
| | | | M | 0.70 | REF. |

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise specified)

| Parameter | Symbol | Ratings | Unit |
|--------------------------------|----------------|--------------|------------|
| Collector-Base Voltage | V_{CBO} | -400 | V |
| Collector-Emitter Voltage | V_{CEO} | -400 | V |
| Emitter-Base Voltage | V_{EBO} | -6 | V |
| Collector Current (DC) | I_C | -0.5 | A |
| Total Power Dissipation | P_D | 1 | W |
| Junction & Storage Temperature | T_J, T_{STG} | 150, -55~150 | $^\circ C$ |

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$ unless otherwise specified)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Conditions |
|--|----------------|------|------|------|------|-------------------------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | -400 | - | - | V | $I_C = -100\mu A, I_E = 0$ |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | -400 | - | - | V | $I_C = -1mA, I_B = 0$ |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | -6 | - | - | V | $I_E = -100\mu A, I_C = 0$ |
| Collector cut-off current | I_{CBO} | - | - | -100 | nA | $V_{CB} = -400V, I_E = 0$ |
| Collector-emitter current | I_{CES} | - | - | -500 | nA | $V_{CE} = -400V, V_{BE} = 0$ |
| Emitter cut-off current | I_{EBO} | - | - | -100 | nA | $V_{EB} = -6V, I_C = 0$ |
| DC current gain * | h_{FE1} | 40 | - | - | | $V_{CE} = -10V, I_C = -1mA$ |
| | h_{FE2} | 50 | - | 300 | | $V_{CE} = -10V, I_C = -10mA$ |
| | h_{FE3} | 45 | - | - | | $V_{CE} = -10V, I_C = -50mA$ |
| | h_{FE4} | 20 | - | - | | $V_{CE} = -10V, I_C = -100mA$ |
| Collector-emitter saturation voltage * | $V_{CE(sat)1}$ | - | - | -350 | mV | $I_C = -1mA, I_B = -0.1mA$ |
| | $V_{CE(sat)2}$ | - | - | -500 | | $I_C = -10mA, I_B = -1mA$ |
| | $V_{CE(sat)3}$ | - | - | -750 | | $I_C = -50mA, I_B = -5mA$ |
| Base-emitter saturation voltage * | $V_{BE(sat)}$ | - | - | -750 | mV | $I_C = -10mA, I_B = -1mA$ |

* Pulse Test: Pulse Width $\leq 380\mu s$, Duty Cycle $\leq 2\%$

CHARACTERISTIC CURVES

