

SOT23 PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

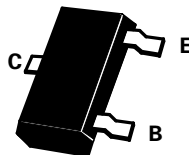
BC807
BC808

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PARTMARKING DETAILS

| | |
|----------------|----------------|
| BC807 – 5DZ | BC808 – 5HZ |
| BC807-16 – 5AZ | BC808-16 – 5EZ |
| BC807-25 – 5BZ | BC808-25 – 5FZ |
| BC807-40 – 5CZ | BC808-40 – 5GZ |

| | | | |
|---------------------|-------|---|-------|
| COMPLEMENTARY TYPES | BC807 | – | BC817 |
| | BC808 | – | BC818 |



SOT23

ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | BC807 | BC808 | UNIT |
|--------------------------------------------|----------------|-------------|-------|-------------|
| Collector-Base Voltage | V_{CBO} | -50 | -30 | V |
| Collector-Emitter Voltage | V_{CEO} | -45 | -25 | V |
| Emitter-Base Voltage | V_{EBO} | -5 | | V |
| Peak Pulse Current | I_{CM} | -1 | | A |
| Continuous Collector Current | I_C | -500 | | mA |
| Base Current | I_B | -100 | | mA |
| Peak Base Current | I_{BM} | -200 | | mA |
| Power Dissipation at $T_{amb}=25^{\circ}C$ | P_{tot} | 330 | | mW |
| Operating and Storage Temperature Range | $T_j; T_{stg}$ | -55 to +150 | | $^{\circ}C$ |

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ unless otherwise stated).

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|---------------|-----------|------|------------|--------------------|--------------------------------------------------------------------|
| Collector Cut-Off Current | I_{CBO} | | | -0.1 -5 | μA μA | $V_{CB}=-20V, I_E=0$ $V_{CB}=-20V, I_E=0, T_{amb}=150^{\circ}C$ |
| Emitter Cut-Off Current | I_{EBO} | | | -10 | μA | $V_{EB}=-5V, I_C=0$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | | -700 | mV | $I_C=-500mA, I_B=-50mA^*$ |
| Base-Emitter Turn-on Voltage | $V_{BE(on)}$ | | | -1.2 | V | $I_C=-500mA, V_{CE}=-1V^*$ |
| Static Forward Current Transfer Ratio | h_{FE} | 100 40 | | 600 | | $I_C=-100mA, V_{CE}=-1V^*$ $I_C=-500mA, V_{CE}=-1V^*$ |
| | -16 | 100 | | 250 | | $I_C=-100mA, V_{CE}=-1V^*$ |
| | -25 | 160 | | 400 | | $I_C=-100mA, V_{CE}=-1V^*$ |
| | -40 | 250 | | 600 | | $I_C=-100mA, V_{CE}=-1V^*$ |
| Transition Frequency | f_T | | 100 | | MHz | $I_C=-10mA, V_{CE}=-5V$ $f=35MHz$ |
| Collector-base Capacitance | C_{obo} | | 8.0 | | pF | $I_E=I_C=0, V_{CB}=-10V$ $f=1MHz$ |

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for these devices