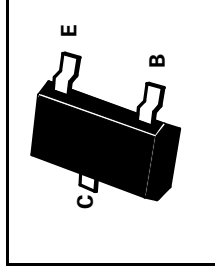


**SOT23 PNP SILICON PLANAR
HIGH SPEED TRANSISTOR**

ISSUE 2 - SEPTEMBER 1995

BSS65

PARTMARKING DETAIL — BSS65 - L1
BSS65R - L5



ABSOLUTE MAXIMUM RATINGS.

| PARAMETER | SYMBOL | VALUE | UNIT |
|--|----------------|-------------|-------------|
| Collector-Base Voltage | V_{CBO} | -12 | V |
| Collector-Emitter Voltage | V_{CEO} | -12 | V |
| Emitter-Base Voltage | V_{EBO} | -4 | V |
| Peak Pulse Current | I_{CM} | -200 | mA |
| Continuous Collector Current | I_C | -100 | mA |
| Base Current | I_B | -50 | 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 $T_{amb} = 25^{\circ}C$).

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | CONDITIONS. |
|---------------------------------------|---------------|-------|------|-------|------|--|
| Breakdown Voltages | $V_{(BR)CEO}$ | -12 | | | V | $I_C = -10mA$ |
| | $V_{(BR)CBO}$ | -12 | | | V | $I_C = -10\mu A$ * |
| | $V_{(BR)EBO}$ | -4 | | | V | $I_E = -10\mu A$ |
| Cut-Off Currents | I_{CBO} | | | -100 | nA | $V_{CB} = -6V, I_E = 0$ |
| | I_{EBO} | | | -100 | nA | $V_{EB} = -4V, I_C = 0$ |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | | | -0.15 | V | $I_C = -10mA, I_B = -1mA$ |
| | | | | -0.25 | V | $I_C = -30mA, I_B = -3mA$ |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | -0.75 | | -0.98 | V | $I_C = -10mA, I_B = -1mA$ |
| | | -0.82 | | -1.20 | V | $I_C = -30mA, I_B = -3mA$ |
| Static Forward Current Transfer Ratio | h_{FE} | 30 | | 150 | | $I_C = -10mA, V_{CE} = -0.3V$ |
| | | 40 | | | | $I_C = -30mA, V_{CE} = -0.5V$ |
| Transition Frequency | f_T | 400 | | | MHz | $I_C = -30mA, V_{CE} = -10V, f = 100MHz$ |
| Collector-Base Capacitance | C_{obo} | | | 6 | pF | $V_{CB} = -5V, I_E = 0, f = 1MHz$ |
| Emitter Base Capacitance | C_{ebo} | | | 6 | pF | $V_{EB} = -0.5V, I_C = 0, f = 1MHz$ |
| Switching Times | t_{on} | 23 | | 60 | nS | $I_C = -30mA$ |
| | t_{off} | 34 | | 90 | nS | $I_{B1} = -I_{B2} = -1.5mA, V_{CC} = -10V$ |