

**ELECTRICAL CHARACTERISTICS** ($T_C = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITIONS | VALUE | UNIT |
|--|-------------|-----------------|-------------------------------------|------|
| Maximum instantaneous forward voltage per diode | $V_F^{(1)}$ | 8.0 A | 0.55 | V |
| Maximum instantaneous reverse current at DC blocking voltage per diode | $I_R^{(2)}$ | Rated V_R | $T_C = 25\text{ }^{\circ}\text{C}$ | mA |
| | | | $T_C = 100\text{ }^{\circ}\text{C}$ | |

Notes⁽¹⁾ Pulse test: 300 μs pulse width, 1 % duty cycle⁽²⁾ Pulse test: pulse width $\leq 40\text{ ms}$ **THERMAL CHARACTERISTICS** ($T_C = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER | SYMBOL | SBL | SBLF | SBLB | UNIT |
|--|-----------------|-----|------|------|----------------------|
| Typical thermal resistance from junction to case per diode | $R_{\theta JC}$ | 2.0 | 4.0 | 2.0 | $^{\circ}\text{C/W}$ |

ORDERING INFORMATION (Example)

| PACKAGE | PREFERRED P/N | UNIT WEIGHT (g) | PACKAGE CODE | BASE QUANTITY | DELIVERY MODE |
|-----------|----------------------------------|-----------------|--------------|---------------|---------------|
| TO-220AB | SBL1640CT-E3/45 | 1.85 | 45 | 50/tube | Tube |
| ITO-220AB | SBLF1640CT-E3/45 | 1.99 | 45 | 50/tube | Tube |
| TO-263AB | SBLB1640CT-E3/45 | 1.35 | 45 | 50/tube | Tube |
| TO-263AB | SBLB1640CT-E3/81 | 1.35 | 81 | 800/reel | Tape and reel |
| TO-220AB | SBL1640CTHE3/45 ⁽¹⁾ | 1.85 | 45 | 50/tube | Tube |
| ITO-220AB | SBLF1640CTHE3/45 ⁽¹⁾ | 1.99 | 45 | 50/tube | Tube |
| TO-263AB | SBLB1640CTHE3/45 ⁽¹⁾ | 1.35 | 45 | 50/tube | Tube |
| TO-263AB | SBLB1640CTHE3/81 ⁽¹⁾ | 1.35 | 81 | 800/reel | Tape and reel |
| TO-263AB | SBLB1640CTHE3_A/P ⁽¹⁾ | 1.35 | P | 50/tube | Tube |
| TO-263AB | SBLB1640CTHE3_A/I ⁽¹⁾ | 1.35 | I | 800/reel | Tape and reel |

Note⁽¹⁾ AEC-Q101 qualified



RATINGS AND CHARACTERISTICS CURVES ($T_C = 25\text{ }^{\circ}\text{C}$ unless otherwise noted)

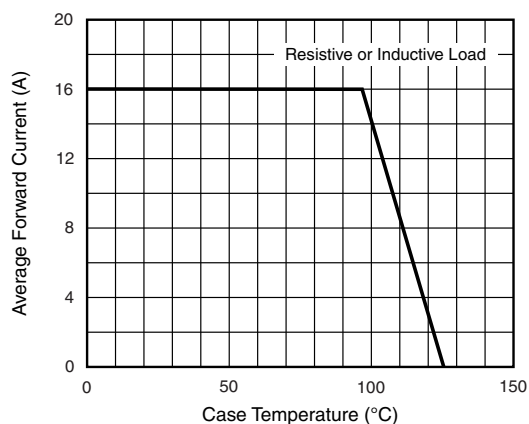


Fig. 1 - Forward Current Derating Curve

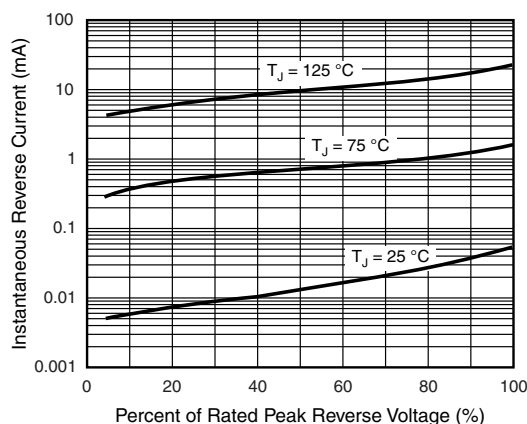


Fig. 4 - Typical Reverse Characteristics Per Diode

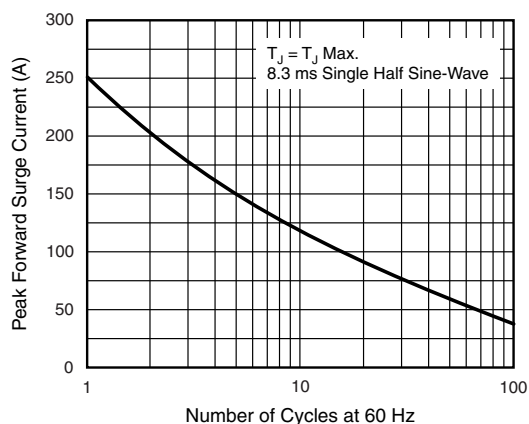


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Diode

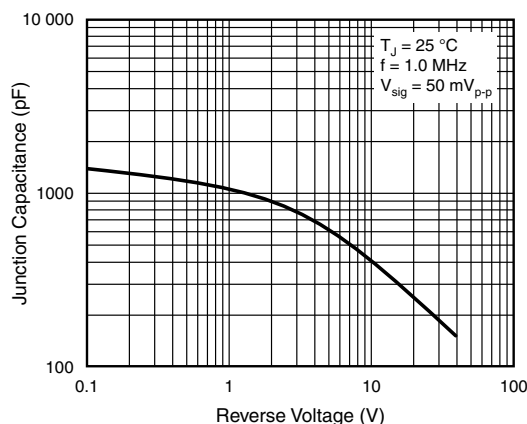


Fig. 5 - Typical Junction Capacitance Per Diode

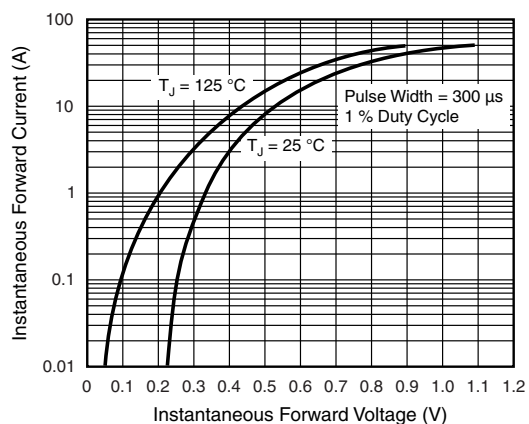


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

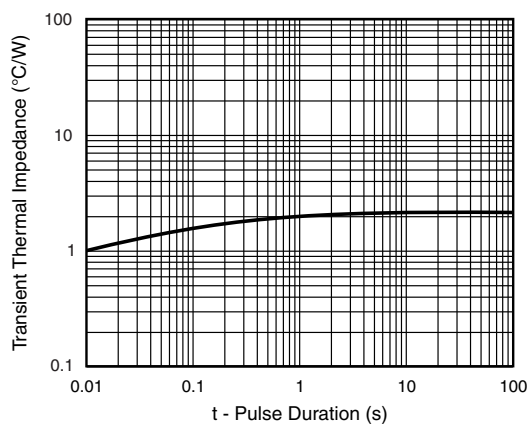
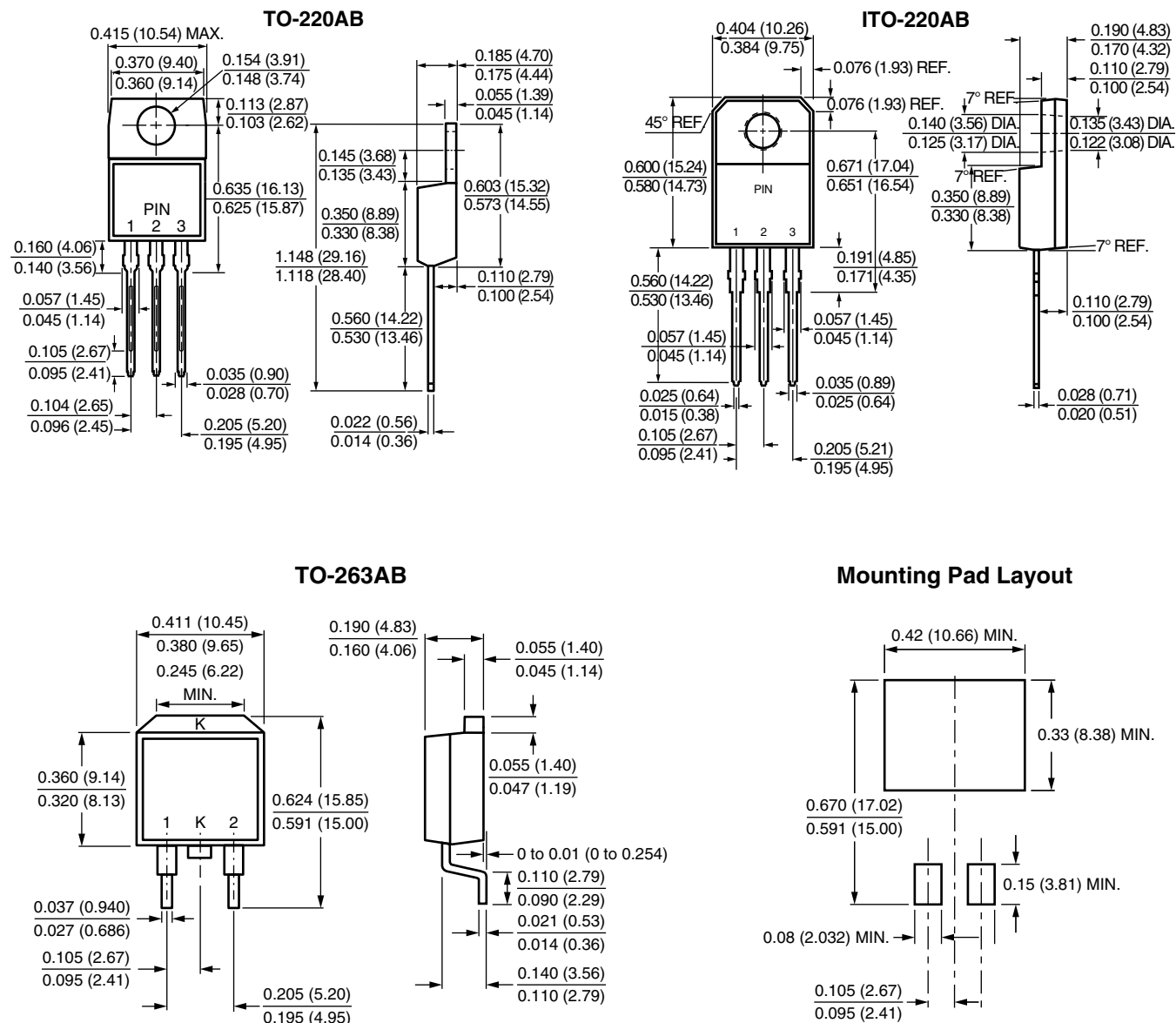


Fig. 6 - Typical Transient Thermal Impedance Per Diode



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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