



| ELECTRICAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted) | | | | | | | | |
|--|---|-----------------------------------|-------------|----------|-----------|-----------|-----------|---------------|
| PARAMETER | TEST CONDITIONS | | SYMBOL | BYW29-50 | BYW29-100 | BYW29-150 | BYW29-200 | UNIT |
| Maximum instantaneous forward voltage | $I_F = 20\text{ A}$ | $T_J = 25\text{ }^\circ\text{C}$ | $V_F^{(1)}$ | 1.3 | | | | V |
| | $I_F = 8.0\text{ A}$ | $T_J = 150\text{ }^\circ\text{C}$ | | 0.8 | | | | |
| Maximum DC reverse current at rated DC blocking voltage | | | I_R | 10 | | | | μA |
| | | | | 500 | | | | |
| Maximum reverse recovery time | $I_F = 1\text{ A}$, $V_R = 30\text{ V}$, $di/dt = 100\text{ A}/\mu\text{s}$, $I_{rr} = 10\% I_{RM}$ | | t_{rr} | 25 | | | | ns |
| Typical junction capacitance | 4.0 V, 1 MHz | | C_J | 45 | | | | pF |

Note(1) Pulse test: 300 μs pulse width, 1 % duty cycle

| THERMAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ unless otherwise noted) | | | | | |
|---|-----------------|-----|------|------|---------------------------|
| PARAMETER | SYMBOL | BYW | BYWF | BYWB | UNIT |
| Typical thermal resistance from junction to case per leg | $R_{\theta JC}$ | 2.5 | 5.5 | 2.5 | $^\circ\text{C}/\text{W}$ |

| ORDERING INFORMATION (Example) | | | | | |
|---------------------------------------|----------------------------------|-----------------|--------------|---------------|---------------|
| PACKAGE | PREFERRED P/N | UNIT WEIGHT (g) | PACKAGE CODE | BASE QUANTITY | DELIVERY MODE |
| TO-220AC | BYW29-200-E3/45 | 1.80 | 45 | 50/tube | Tube |
| ITO-220AC | BYWF29-200-E3/45 | 1.95 | 45 | 50/tube | Tube |
| D ² PAK (TO-263AB) | BYWB29-200-E3/45 | 1.77 | 45 | 50/tube | Tube |
| D ² PAK (TO-263AB) | BYWB29-200-E3/81 | 1.77 | 81 | 800/reel | Tape and reel |
| ITO-220AC | BYWF29-200HE3_A/P ⁽¹⁾ | 1.95 | P | 50/tube | Tube |
| D ² PAK (TO-263AB) | BYWB29-200HE3_A/P ⁽¹⁾ | 1.77 | P | 50/tube | Tube |
| D ² PAK (TO-263AB) | BYWB29-200HE3_A/I ⁽¹⁾ | 1.77 | I | 800/reel | Tape and reel |

Note

(1) AEC-Q101 qualified, available in ITO-220AC and TO-263AB package

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

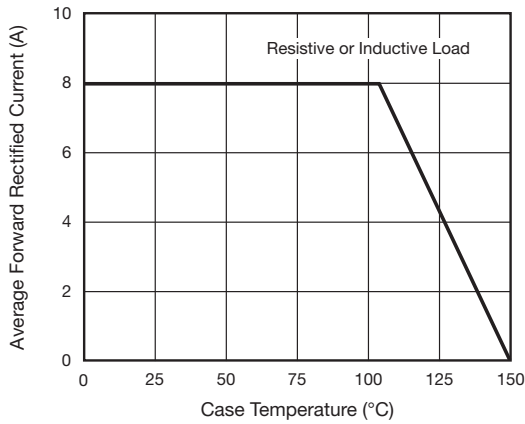


Fig. 1 - Maximum Forward Current Derating Curve

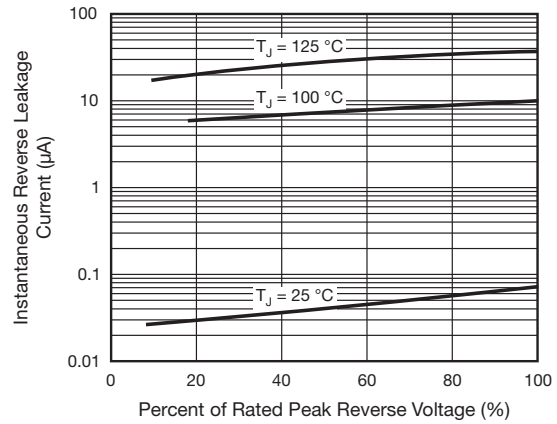


Fig. 4 - Typical Reverse Leakage Characteristics

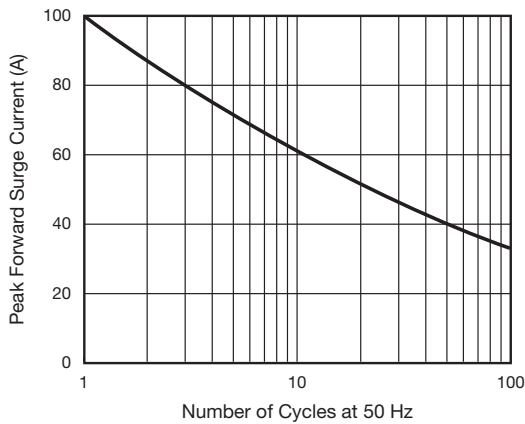


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

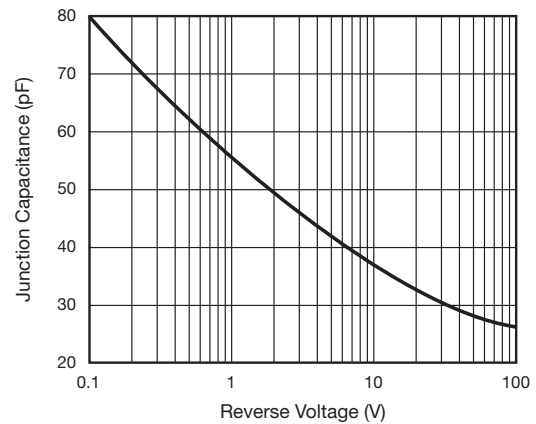


Fig. 5 - Typical Junction Capacitance

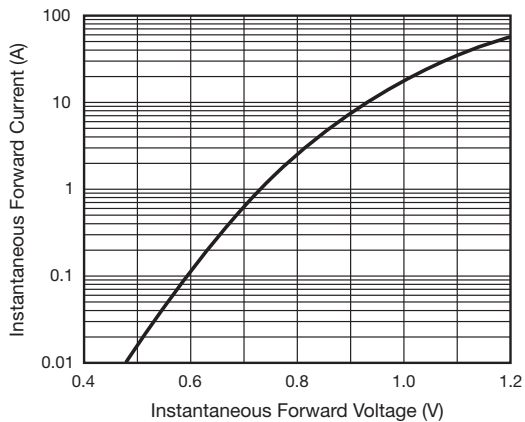
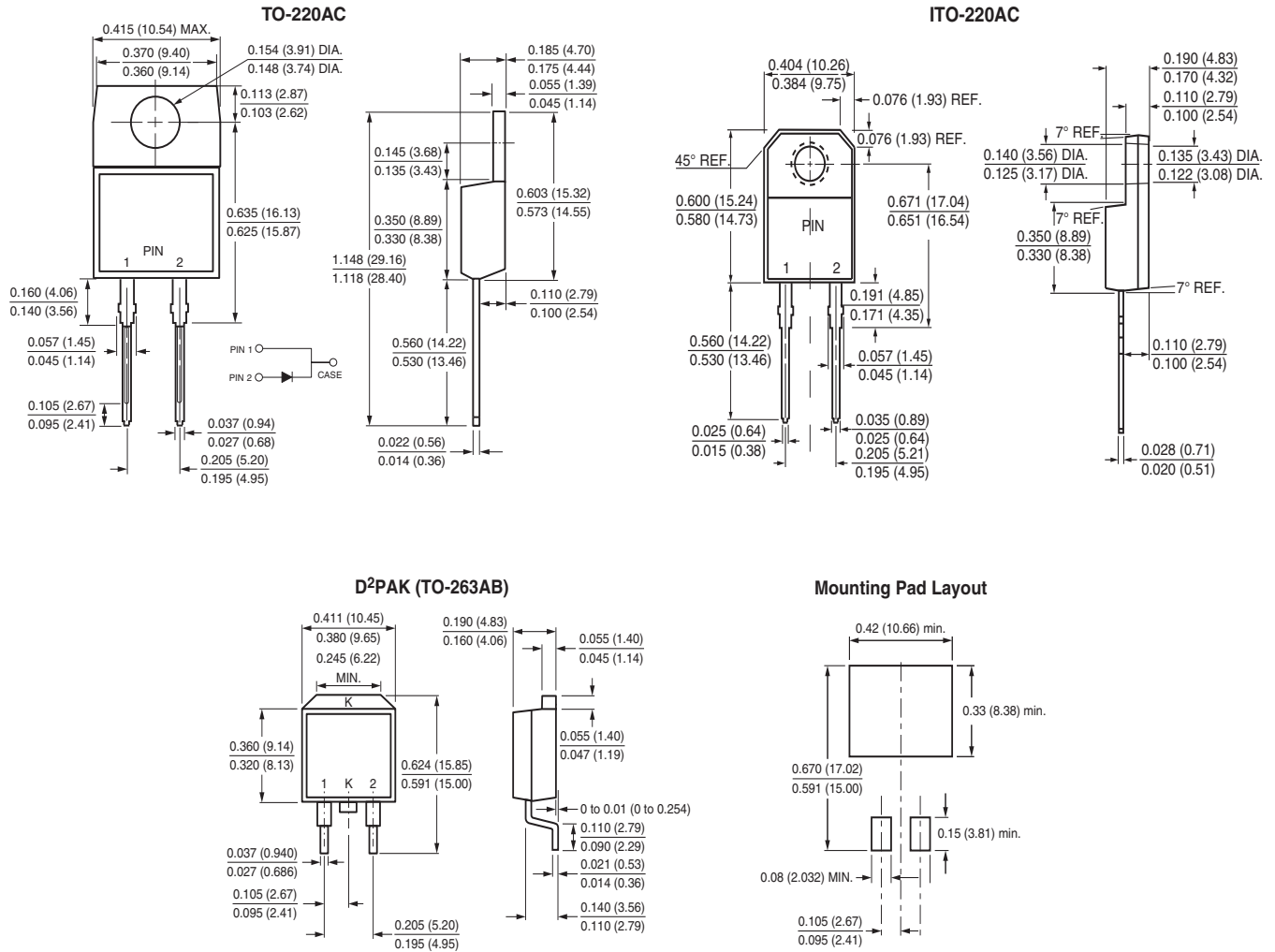


Fig. 3 - Typical Instantaneous Forward Characteristics



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)





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