

TECHNICAL DATA
DATA SHEET 5147, Rev A.1

HERMETIC ULTRAFAST RECTIFIER

DESCRIPTION: A 200-VOLT, 80 AMP, 50 NANOSECOND RECTIFIER IN A HERMETIC SMD-1 PACKAGE.

FEATURES:

- Soft Reverse Recovery to minimize snubbers / EMI issues
- Low profile ceramic package for reduced inductance
- Low forward drop
- Available with JANTX, JANTXV, JANS equivalent screening

MAXIMUM RATINGS

ALL RATINGS ARE AT $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED

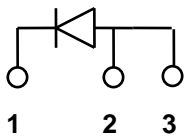
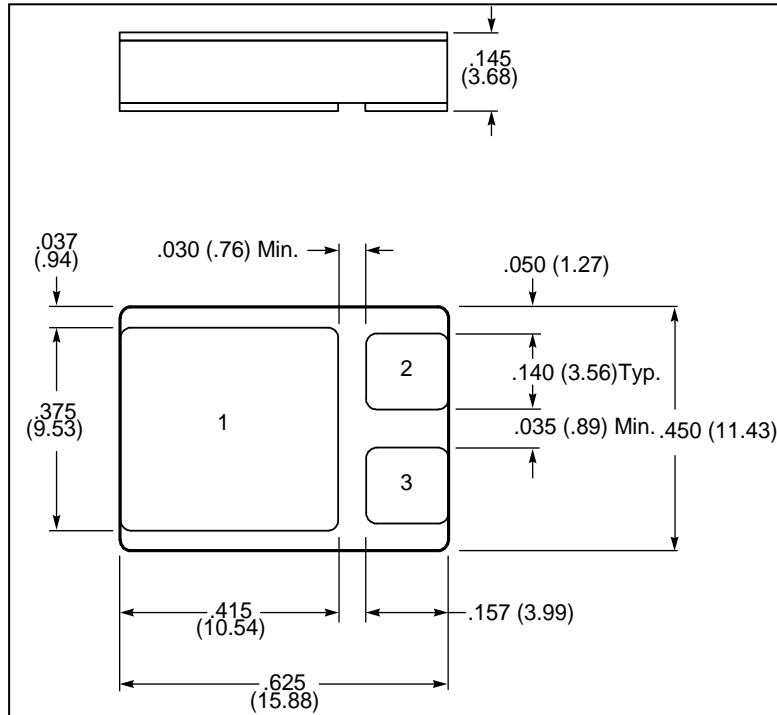
| RATING | SYMBOL | MAX. | UNITS |
|--|-----------------|-------------|--------------------|
| PEAK INVERSE VOLTAGE (PER LEG) | PIV | 200 | Volts |
| MAXIMUM DC OUTPUT CURRENT ($T_C = 100^\circ\text{C}$) | I_O | 80 | Amps |
| PEAK SINGLE CYCLE SURGE CURRENT $t_p = 8.3 \text{ msec}$ | I_{FSM} | 250 | Amps |
| MAXIMUM THERMAL RESISTANCE | $R_{\theta JC}$ | 0.8 | $^\circ\text{C/W}$ |
| MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE | $T_{op/stg}$ | -65 to +175 | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS

| CHARACTERISTIC | SYMBOL | MAX. | UNITS |
|--|----------|------|---------------|
| MAXIMUM FORWARD VOLTAGE DROP $I_f = 5 \text{ Amps}, T_C = 25^\circ\text{C}$ | V_{f1} | 0.78 | V |
| $I_f = 25 \text{ Amps}, T_C = 25^\circ\text{C}$ | V_{f2} | 0.90 | |
| $I_f = 50 \text{ Amps}, T_C = 25^\circ\text{C}$ | V_{f3} | 1.05 | |
| $I_f = 80 \text{ Amps}, T_C = 25^\circ\text{C}$ | V_{f4} | 1.15 | |
| $I_f = 50 \text{ Amps}, T_C = -55^\circ\text{C}$ | V_{f5} | 1.15 | |
| $I_f = 50 \text{ Amps}, T_C = 100^\circ\text{C}$ | V_{f6} | 0.90 | |
| MAXIMUM REVERSE CURRENT I_r @ 200V, $T_C = 25^\circ\text{C}$ | I_r | 50 | μA |
| MAXIMUM REVERSE CURRENT I_r @ 200V, $T_C = 100^\circ\text{C}$ | I_r | 8 | mA |
| MAXIMUM REVERSE RECOVERY TIME $I_F = 9.9\text{A}, di_F/dt = 200 \text{ A}/\mu\text{s}, V_R = 30\text{V}, T_C = 25^\circ\text{C}$ | t_{RR} | 60 | ns |
| MAXIMUM REVERSE RECOVERY Current $I_F = 9.9\text{A}, di_F/dt = 200 \text{ A}/\mu\text{s}, V_R = 30\text{V}, T_C = 25^\circ\text{C}$ | I_{RM} | 7 | A |

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MECHANICAL DIMENSIONS: In Inches / mm



SMD-1

PINOUT TABLE

| DEVICE TYPE | PIN 1 | PIN 2 | PIN 3 |
|------------------|---------|-------|-------|
| SINGLE RECTIFIER | CATHODE | ANODE | ANODE |

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