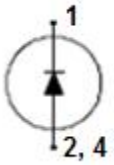
**PRELIMINARY DATASHEET**

# 1200V 112A, Silicon Carbide Schottky Diode in Isolated SOT227 Package




## APPLICATIONS

- Switch mode power supplies (SMPS)
- Uninterruptible power supplies (UPS)
- Induction heating
- Motor drives
- High speed rectifiers


## FEATURES

- 175 °C maximum junction temperature
- Extremely fast switching independent with temperature
- Positive temperature coefficient for safe operation
- No reverse recovery
- Pb-free finished; **RoHS compliant**

**MAXIMUM RATINGS,** at $T_j$ = 25°C, unless otherwise specified

| Parameter | Symbol | Value | Units |
|---|---|---|---|
| Repetitive peak reverse voltage | $V_{RRM}$ | 1200 | V |
| DC forward current<br>$T_c$ = 120 °C | $I_{F(AV)}$ | 112 | A |
| Surge non-repetitive forward current, half sine wave<br>$T_C$ = 25 °C, $t_p$ = 8.3ms | $I_{FSM}$ | 568 | |
| Operating junction and storage temperature range | $T_j$, $T_{stg}$ | -55 to 175 | °C |

**Thermal and Isolation Characteristics**

| Parameter | Symbol | Max. Value | Units |
|---|---|---|---|
| **Characteristics** | | | |
| Thermal resistance, junction to case | $R_{thJC}$ | 0.18 | °C/W |
| Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-3 seconds) | $V_{iso}$ | 3000 | V |

**Electrical Characteristics,** at $T_j$ = 25°C, unless otherwise specified

| Parameter | Conditions | Symbol | Value | | | Unit |
|---|---|---|---|---|---|---|
| | | | Min. | Typ. | Max. | |
| **Static Characteristics** | | | | | | |
| Reverse leakage current | $V_R$ = 1200 V | $I_R$ | - | - | 2 | mA |
| Forward voltage drop | $I_F$ = 112A | $V_F$ | - | 1.67 | - | V |
| **Dynamic Characteristics** | | | | | | |
| Total capacitive charge | $V_R$ = 1200V, $I_F$ = 80A<br>di/dt = -200A/µs | $Q_C$ | - | 528 | - | nC |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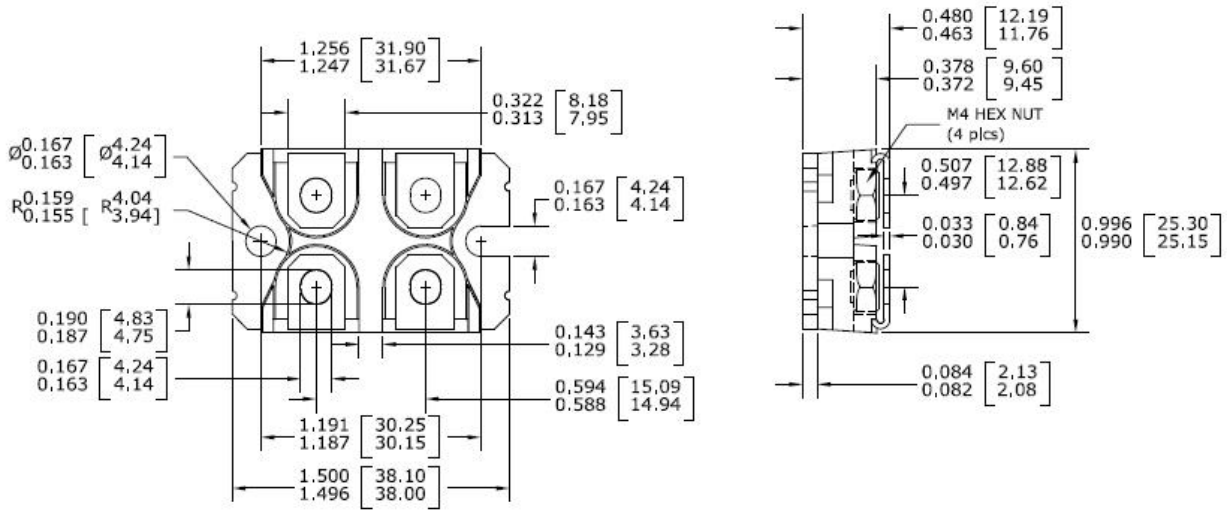
## Package Outline Drawing




## Disclaimer

These specifications may not be considered as a guarantee of components characteristics. Components have to be tested depending on intended application as adjustments may be necessary. The use of **iQXPRZ Power Inc.** components in life support appliances and systems are subject to written approval of **iQXPRZ Power Inc.**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