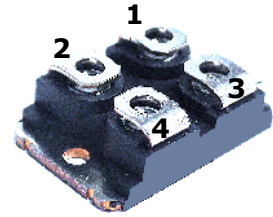
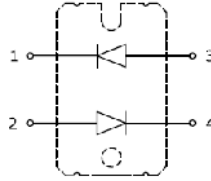


PRELIMINARY DATASHEET
**Anti-Parallel, 2x100A, 1200V Fast Recovery Epitaxial Diodes
 In Isolated SOT227 Package**

- Ultrafast recovery time
- Soft recovery characteristics
- Low recovery loss
- Low forward voltage
- High surge current capability


MAXIMUM RATINGS (per Leg), at $T_j = 25^\circ\text{C}$, unless otherwise specified

| Parameter | Symbol | Value | Units |
|---|----------------|--------------|------------------|
| Repetitive peak reverse voltage | V_{RRM} | 1200 | V |
| Average forward current, at $T_C=90^\circ\text{C}$ | $I_{F(AV)}$ | 100 | A |
| RMS forward current, $T_C=90^\circ\text{C}$ | $I_{F(RMS)}$ | 141 | |
| Non-repetitive surge forward current $T_j=45^\circ\text{C}$, $t=10\text{ms}$, 50Hz, sine $T_j=45^\circ\text{C}$, $t=8.3\text{ms}$, 60Hz, sine | I_{FSM} | 1450 1600 | |
| Operating junction and storage temperature | T_j, T_{stg} | -40... +150 | $^\circ\text{C}$ |

Thermal and Isolation Characteristics

| Parameter | Symbol | Max. Value | Units |
|--|------------|------------|---------------------------|
| Characteristics | | | |
| Thermal resistance, junction to case | R_{thJC} | 0.45 | $^\circ\text{C}/\text{W}$ |
| Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-3 seconds) | V_{iso} | 3000 | V |

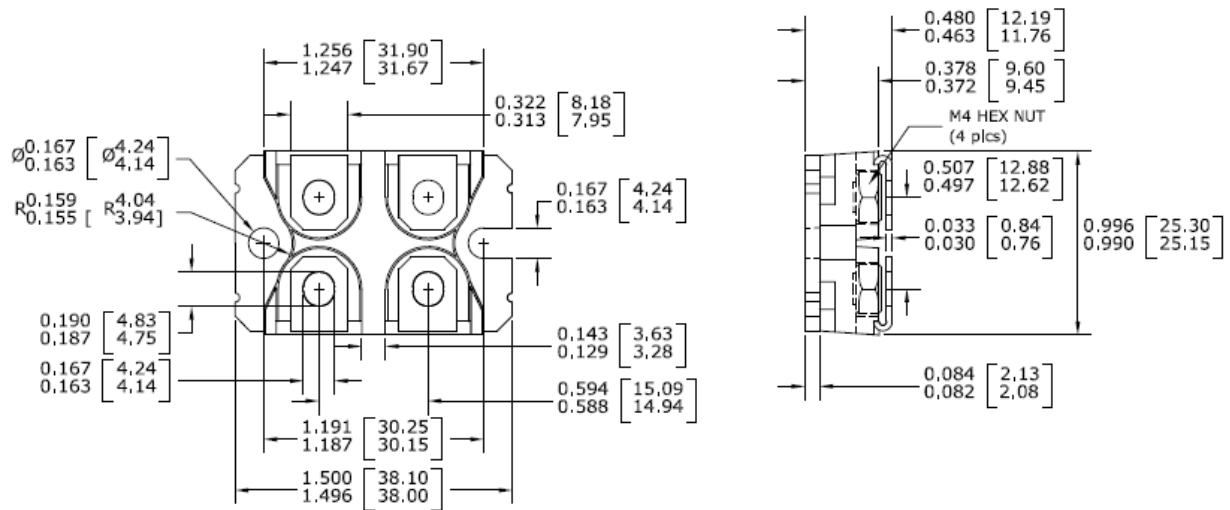
Electrical Characteristics (per Leg), at $T_j = 25^\circ\text{C}$, unless otherwise specified

| Parameter | Symbol | Value | | | Unit |
|---|----------|-------|------|------|---------------|
| | | Min. | Typ. | Max. | |
| Static Characteristics | | | | | |
| Reverse leakage current $V_R = 1200\text{V}$ | I_{RM} | - | - | 50 | μA |
| Forward voltage $I_F = 100\text{A}$ | V_F | - | 2.2 | 3.0 | V |

Electrical Characteristics (per Leg), Inductive Load, at $T_j = 25^\circ\text{C}$, unless otherwise specified

| Parameter | Symbol | Value | | | Unit |
|---|-----------|-------|------------------|------|------|
| | | Min. | Typ. | Max. | |
| Dynamic Characteristics | | | | | |
| Reverse recovery time $V_R = 30\text{V}$, $I_F = 1\text{A}$, $di_F/dt = 200\text{A}/\mu\text{s}$, $T_j = 25^\circ\text{C}$ $V_R = 600\text{V}$, $I_F = 100\text{A}$, $di_F/dt = 200\text{A}/\mu\text{s}$, $T_j = 25^\circ\text{C}$ $V_R = 600\text{V}$, $I_F = 100\text{A}$, $di_F/dt = 200\text{A}/\mu\text{s}$, $T_j = 125^\circ\text{C}$ | t_{rr} | - | 50 135 380 | - | ns |
| Maximum reverse recovery current $V_R = 600\text{V}$, $I_F = 100\text{A}$, $di_F/dt = 200\text{A}/\mu\text{s}$, $T_j = 25^\circ\text{C}$ $V_R = 600\text{V}$, $I_F = 100\text{A}$, $di_F/dt = 200\text{A}/\mu\text{s}$, $T_j = 125^\circ\text{C}$ | I_{rrm} | - | 10 21 | - | A |

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.**