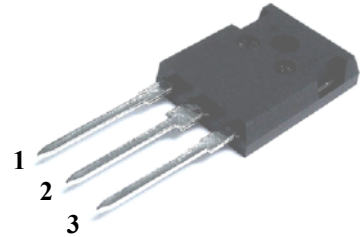
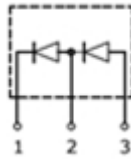


**PRELIMINARY DATASHEET**
**Fast Recovery 2X30A, 600V Diodes, Half-bridge Configuration in TO247 Package**

- Fast recovery
- Soft switching
- Low reverse recovery charge
- Low forward voltage
- RoHS compliant


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

| Parameter  | Symbol         | Value       | Units            |
|--|----------------|-------------|------------------|
| Repetitive peak reverse voltage  | $V_{RRM}$      | 600         | V                |
| Continuous forward current<br>$T_c = 85^\circ\text{C}$   | $I_F$          | 30          | A                |
| Maximum repetitive forward current<br>$T_c = 25^\circ\text{C}$ , $t_p$ limited by $T_{jmax}$ , $D = 0.5$ | $I_{FRM}$      | 60          |                  |
| Operating junction and storage temperature   | $T_j, T_{stg}$ | -55... +150 | $^\circ\text{C}$ |

**Thermal and Isolation Characteristics**

| Parameter  | Symbol     | Max. Value | Units                     |
|--|------------|------------|---------------------------|
| <b>Characteristics</b>   |            |            |                           |
| Thermal resistance, junction to case, per Diode  | $R_{thJC}$ | 1.365      | $^\circ\text{C}/\text{W}$ |
| Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-3 seconds) | $V_{iso}$  | 3000       | V                         |

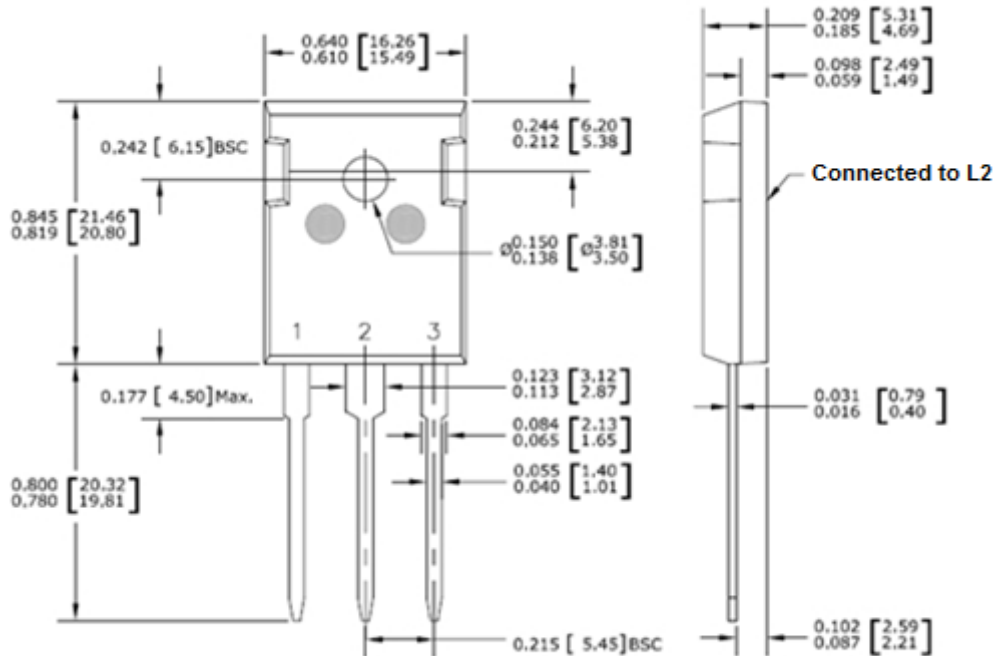
**Electrical Characteristics (per diode), at  $T_j = 25^\circ\text{C}$ , unless otherwise specified**

| Parameter   | Symbol | Value |      |      | Unit          |
|---|--------|-------|------|------|---------------|
|   |        | Min.  | Typ. | Max. |               |
| <b>Static Characteristics</b>   |        |       |      |      |               |
| Reverse leakage current<br>$V_R = 600\text{V}$ , $T_j = 25^\circ\text{C}$ | $I_R$  | -     | -    | 50   | $\mu\text{A}$ |
| Forward voltage drop<br>$I_F = 30\text{A}$ , $T_j = 25^\circ\text{C}$     | $V_F$  | -     | 1.8  | -    | V             |

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

| Parameter   | Symbol    | Value |      |      | Unit          |
|---|-----------|-------|------|------|---------------|
|   |           | Min.  | Typ. | Max. |               |
| <b>Dynamic Characteristics</b>  |           |       |      |      |               |
| Diode reverse recovery time<br>$V_R = 400\text{V}$ , $I_F = 30\text{A}$ , $di_F/dt = 1000\text{A}/\mu\text{s}$ , $T_j = 25^\circ\text{C}$ | $t_{rr}$  | -     | 126  | -    | ns            |
| Peak reverse current<br>$V_R = 400\text{V}$ , $I_F = 30\text{A}$ , $di_F/dt = 1000\text{A}/\mu\text{s}$ , $T_j = 25^\circ\text{C}$        | $I_{rrm}$ | -     | 19   | -    | A             |
| Reverse recovery charge<br>$V_R = 400\text{V}$ , $I_F = 30\text{A}$ , $di_F/dt = 1000\text{A}/\mu\text{s}$ , $T_j = 25^\circ\text{C}$     | $Q_{rr}$  | -     | 1.1  | -    | $\mu\text{C}$ |

**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.**