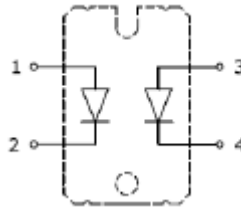


PRELIMINARY DATASHEET
**Parallel Fast Recovery, 2x30A, 600V Diodes
 In Isolated SOT227 Package**

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


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 $T_C = 25^\circ\text{C}$ $T_C = 85^\circ\text{C}$	I_F	50 30	A
Surge non-repetitive forward current $T_J = 25^\circ\text{C}$, $t_p = 10\text{ms}$, Sine halfwave	I_{FSM}	117	
Maximum repetitive forward current $T_C = 25^\circ\text{C}$, t_p limited by T_{Jmax} , $D=0.5$	I_{FRM}	81	
Soldering temperature Wave soldering, 1.6mm (0.063 in.) from case for 10s	T_S	260	$^\circ\text{C}$
Operating junction and storage temperature	T_J, T_{stg}	-55... +150	

Thermal and Isolation Characteristics

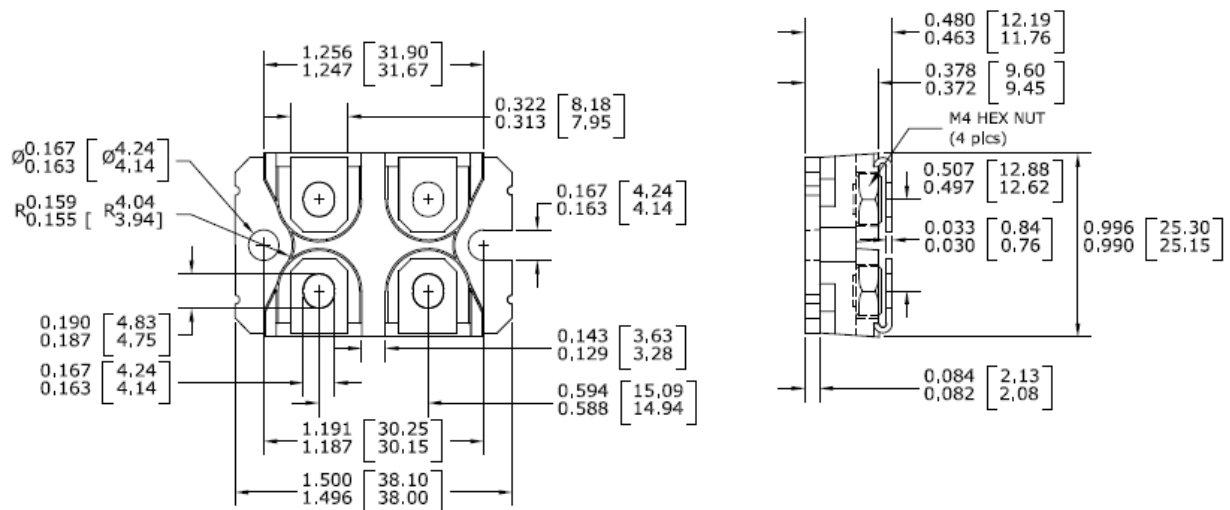
Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case, per Diode	R_{thJC}	1.365	$^\circ\text{C}/\text{W}$
Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-3 seconds)	V_{iso}	3000	V

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

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Static Characteristics					
Reverse leakage current $V_R = 600\text{V}$ $V_R = 600\text{V}$, $T_j = 150^\circ\text{C}$	I_R	- -	- -	50 250	μA
Forward voltage drop $I_F = 30\text{A}$ $I_F = 30\text{A}$, $T_j = 150^\circ\text{C}$	V_F	- -	1.5 1.5	2.0 -	V

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

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Dynamic Characteristics					
Reverse recovery time $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 25^\circ\text{C}$ $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 125^\circ\text{C}$ $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 150^\circ\text{C}$	t_{rr}	- - -	126 171 178	- - -	ns
Maximum reverse recovery current $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 25^\circ\text{C}$ $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 125^\circ\text{C}$ $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 150^\circ\text{C}$	I_{rrm}	- - -	19 22 24	- - -	A
Reverse recovery charge $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 25^\circ\text{C}$ $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 125^\circ\text{C}$ $V_R = 400\text{V}$, $I_F = 30\text{A}$, $di_F/dt = 1000\text{A}/\mu\text{s}$, $T_j = 150^\circ\text{C}$	Q_{rr}	- - -	1100 1950 2150	- - -	nC

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.**