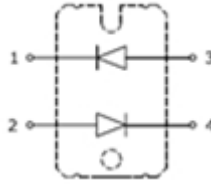


PRELIMINARY DATASHEET
**Anti-Parallel Fast Recovery, 2X50A, 1200V
 Diodes in Isolated SOT227 Package**

- Ultrafast recovery time
- Soft recovery characteristics
- Low recovery loss
- Low forward voltage
- High surge current capability
- Low leakage current
- Pb-free; 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}	1200	V
Continuous forward current $T_C = 80^\circ\text{C}$	I_F	50	A
Surge non-repetitive forward current $T_J = 45^\circ\text{C}$, $t_p = 10$ ms, 50Hz, Sine	I_{FSM}	100	
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, per Diode	R_{thJC}	0.85	$^\circ\text{C}/\text{W}$
Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-3 seconds)	V_{iso}	3000	V

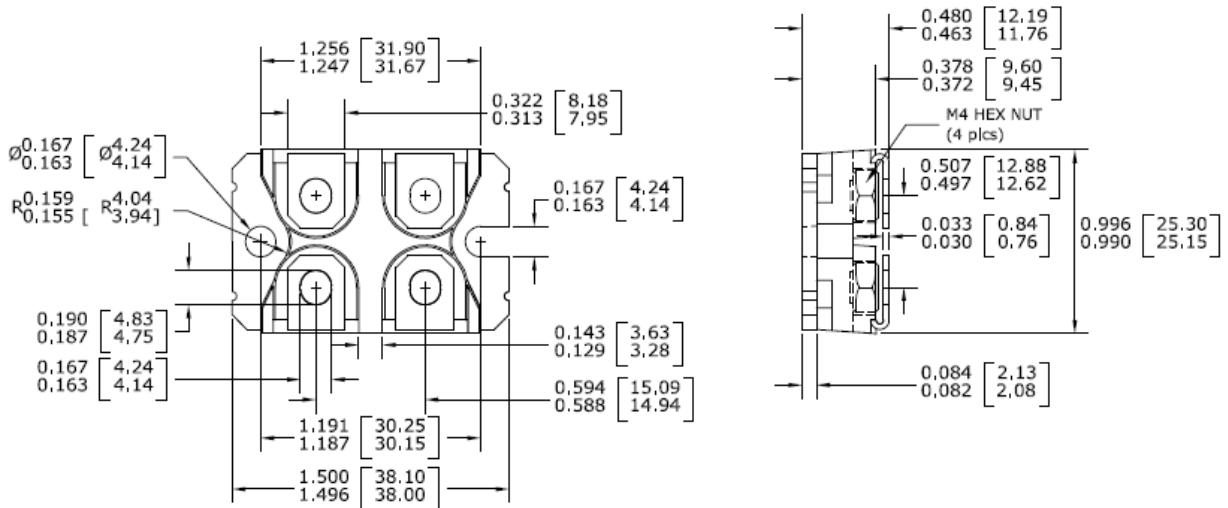
Electrical Characteristics (per Diode), at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Static Characteristics					
Reverse leakage current $V_R = 1200$ V	I_R	-	-	100	μA
Forward voltage drop $I_F = 50$ A	V_F	-	1.7	-	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 $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs , $T_J = 125^\circ\text{C}$	t_{rr}	-	250 360	-	ns
Maximum reverse recovery current $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs , $T_J = 125^\circ\text{C}$	I_{rrm}	-	45 55	-	A
Reverse recovery charge $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs , $T_J = 125^\circ\text{C}$	Q_{rr}	-	6.5 12.7	-	μC

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.**