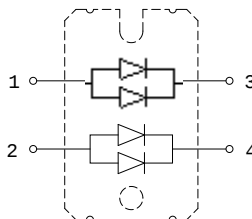


PRELIMINARY DATASHEET
**Parallel Fast Recovery, 4X50A, 1200V Diodes
in Isolated SOT227 Package**

- 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 Leg), 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	100	A
Surge non-repetitive forward current $T_J = 45^\circ\text{C}$, $t_p = 10\text{ ms}$, 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	R_{thJC}	0.43	$^\circ\text{C/W}$
Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-3 seconds)	V_{iso}	3000	V

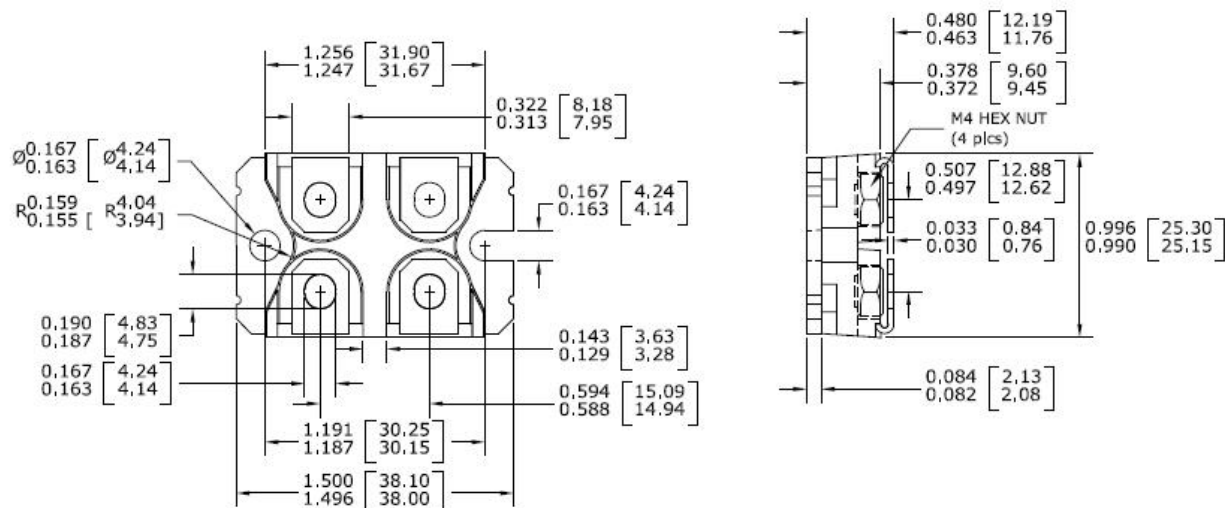
Electrical Characteristics (per Leg), at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Static Characteristics					
Reverse leakage current V _R = 1200 V	I _R	-	-	200	μA
Forward voltage drop I _F = 100A	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.	
Dynamic Characteristics					
Reverse recovery time V _R = 600V, I _F = 100A, di _F /dt = -1000A/μs V _R = 600V, I _F = 100A, di _F /dt = -1000A/μs, T _j = 125°C	t _{rr}	- -	250 360	- -	ns
Maximum reverse recovery current V _R = 600V, I _F = 100A, di _F /dt = -1000A/μs V _R = 600V, I _F = 100A, di _F /dt = -1000A/μs, T _j = 125°C	I _{rrm}	- -	45 55	- -	A
Reverse recovery charge V _R = 600V, I _F = 100A, di _F /dt = -1000A/μs V _R = 600V, I _F = 100A, di _F /dt = -1000A/μs, T _i = 125°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.**