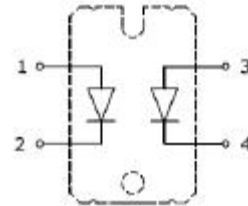


PRELIMINARY DATASHEET
Parallel 1200V 2X56A, Silicon Carbide Schottky Diode in Isolated SOT227 Package
APPLICATIONS

- Switch mode power supplies (SMPS)
- Uninterruptible power supplies (UPS)
- Induction heating
- Motor drives
- High speed rectifiers


FEATURES

- 175 °C maximum junction temperature
- Extremely fast switching independent with temperature
- Positive temperature coefficient for safe operation
- No reverse recovery
- Pb-free finished; **RoHS compliant**


MAXIMUM RATINGS (per Diode)

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	V_{RRM}	1200	V
DC forward current $T_C = 120\text{ }^\circ\text{C}$	$I_{F(AV)}$	56	A
Surge non-repetitive forward current, half sine wave $T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ms}$	I_{FSM}	284	
Operating junction and storage temperature range	T_j, T_{stg}	-55 to 175	$^\circ\text{C}$

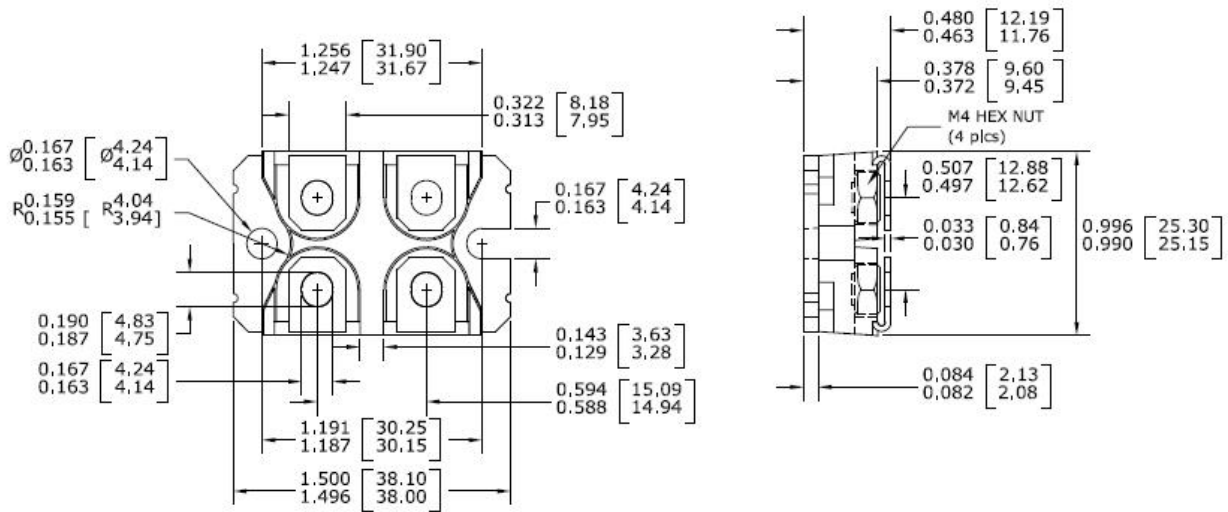
Thermal and Isolation Characteristics

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case, per Diode	R_{thJC}	0.36	$^\circ\text{C}/\text{W}$
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	Conditions	Symbol	Value			Unit
			Min.	Typ.	Max.	
Static Characteristics						
Reverse leakage current	$V_R = 1200\text{ V}$	I_R	-	-	1	mA
Forward voltage drop	$I_F = 56\text{ A}$	V_F	-	1.67	-	V
Dynamic Characteristics						
Total capacitive charge	$V_R = 1200\text{ V}$, $I_F = 40\text{ A}$ $di/dt = -200\text{ A}/\mu\text{s}$	Q_C	-	264	-	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.**