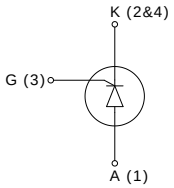
PRELIMINARY DATASHEET

Phase Control Thyristor in SOT227 Package
1800V/ 95A

- Electrically isolated baseplate
- High surge capability
- General purpose thyristors
- Pb-free lead finish; **RoHS compliant**



MAXIMUM RATINGS, at T_j = 25°C, unless otherwise specified

Parameter	Symbol	Value	Units
Average on-state current T_C= 85°C, 180°C conduction, half sine wave	$I_{T(AV)}$	95	A
Non-repetitive surge peak on-state current At tp=10 ms, 100% V_{RRM}, sine half-wave, initial Tj = Tj max.	I_{TSM}	1785	
Peak gate current At tp≤5ms, Tj = Tj max.	I_{GM}	3.0	
Peak reverse and off-state leakage current At Tj = Tj max.	I_{RRM} /I_{DRM}	20	mA
I^2t value for fusing At tp=10 ms, 100% V_{RRM}, sine half-wave, initial Tj = Tj max.	I^2t	15900	A^2s
Repetitive peak off-state voltage	V_{DRM}	1800	V
Repetitive reverse voltage	V_{RRM}	1800	
Peak gate power At tp≤5ms, Tj = Tj max.	P_{GM}	12	W
Operating junction and storage temperature	T_j, T_{stg}	-40… +125	°C

Thermal and Isolation Characteristics

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	0.28	K/W
Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-2 seconds)	V_{iso}	3000	V

Triggering Characteristics

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Gate trigger voltage V_{AK} = 6V, resistive load	I_{GT}	30	-	150	mA
Gate trigger current V_{AK} = 6V, resistive load	V_{GT}	-	1.5	-	V
Holding current V_{AK} = 6V, I_T = 1A, resistive load	I_H	-	-	220	mA
Latching current V_{AK} = 6V, I_T = 1A, resistive load	I_L	-	-	400	
Maximum ON-state or forward voltage I_{TM} = 325A	V_{TM}	-	1.65	-	V

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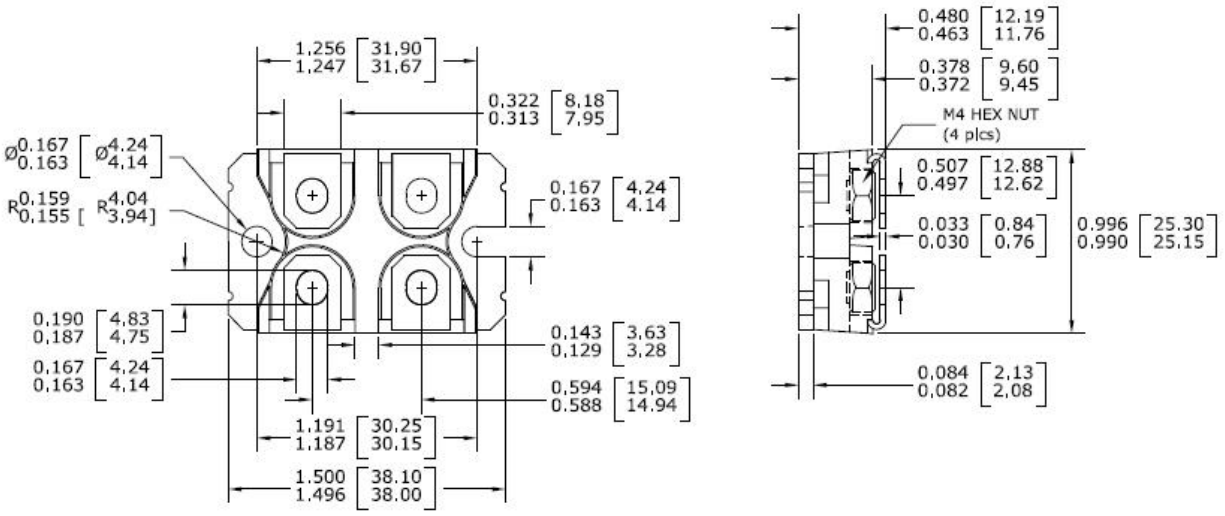
Package Outline Drawing



CAUTION: These devices are ESD sensitive. Use proper handling procedure.

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.**

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