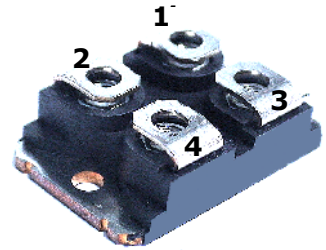
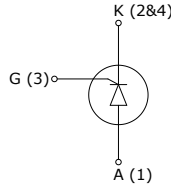


PRELIMINARY DATASHEET
**Phase Control Thyristor in SOT227 Package
 1800V/ 95A**

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


MAXIMUM RATINGS, at $T_j = 25^\circ\text{C}$, unless otherwise specified

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

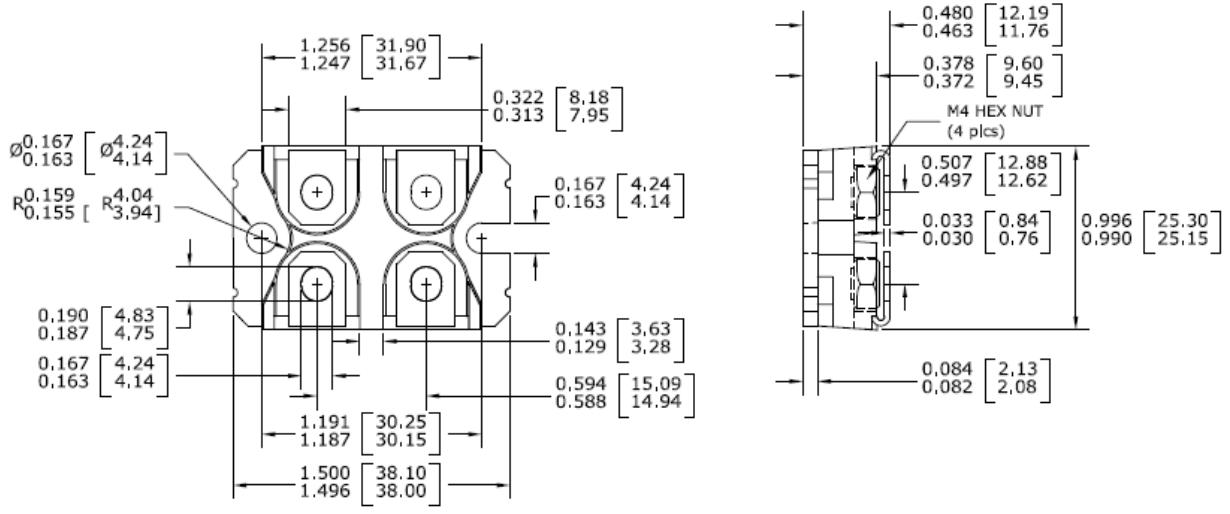
Thermal and Isolation Characteristics

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 $V_{AK} = 6\text{V}$, resistive load	I_{GT}	30	-	150	mA
Gate trigger current $V_{AK} = 6\text{V}$, resistive load	V_{GT}	-	1.5	-	V
Holding current $V_{AK} = 6\text{V}$, $I_T = 1\text{A}$, resistive load	I_H	-	-	220	mA
Latching current $V_{AK} = 6\text{V}$, $I_T = 1\text{A}$, resistive load	I_L	-	-	400	
Maximum ON-state or forward voltage $I_{TM} = 325\text{A}$	V_{TM}	-	-	1.65	V

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.**