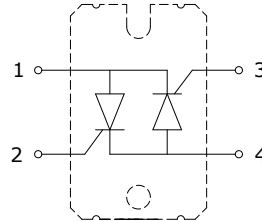


**PRELIMINARY DATASHEET**
**Anti-Parallel Silicon Controlled Rectifiers  
 1600V, 55A in SOT227 Package**

- High voltage & high current
- Low on-state voltage
- Suitable for over voltage control, motor control circuit and heating control system
- Pb-free lead finish; RoHS compliant


**MAXIMUM RATINGS,  $T_C = 25^\circ\text{C}$  unless otherwise noted**

Parameter	Symbol	Value	Units
Average on-state current $T_J = 125^\circ\text{C}$	$I_{T(AV)}$	55	A
Continuous RMS on-state current as AC switch	$I_{T(RMS)}$	86	
Non-repetitive surge peak on-state current $T_J = 125^\circ\text{C}$ , $t_p = 10$ ms, applied rated $V_{RRM}$	$I_{TSM}$	1000	
Let value for fusing $T_J = 125^\circ\text{C}$ , $t_p = 10$ ms, applied rated $V_{RRM}$	$I^2t$	5000	$\text{A}^2\text{s}$
Peak gate current $T_J = 125^\circ\text{C}$	$I_{GM}$	2.5	A
Maximum repetitive peak off-state voltage $I_R = 100\mu\text{A}$	$V_{DRM}$	1600	V
Maximum repetitive reverse voltage $I_R = 100\mu\text{A}$	$V_{RRM}$	1600	
Maximum reverse leakage current	$I_{RRM}$	0.2	mA
Maximum direct leakage current	$I_{DRM}$	0.2	
Operating junction and storage temperature	$T_J, T_{stg}$	-40... +125	$^\circ\text{C}$

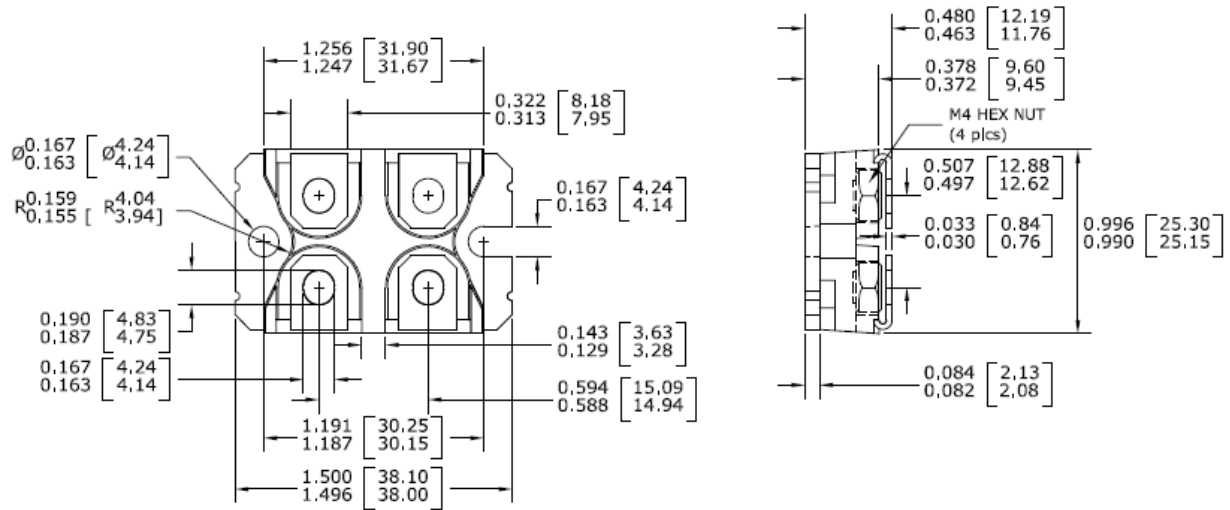
**Thermal Resistance**

Parameter	Symbol	Max. Value	Units
<b>Characteristics</b>			
Thermal resistance, junction to case	$R_{thJC}$	0.8	$^\circ\text{C} / \text{W}$
Thermal resistance, junction to ambient	$R_{thJA}$	40	
Isolation voltage, RMS (measured between terminals and mounting base, 50-60 Hz, for 1-2 seconds)	$V_{iso}$	3000	V

**Electrical Characteristics, at  $T_J = 25^\circ\text{C}$ , unless otherwise specified**

Parameter	Symbol	Test Conditions	Value			Unit
			Min.	Typ.	Max.	
Maximum required DC gate current to trigger	$I_{GT}$	Anode Supply = 6V, $R_L = 33\Omega$	-	-	100	mA
Maximum required DC gate voltage to trigger	$V_{GT}$		-	-	1.5	V
Maximum holding current	$I_H$	$T_J = 25^\circ\text{C}$ , anode supply 6V, resistive load	-	-	220	
Maximum latching current	$I_L$		-	-	400	
Maximum rate of rise of off-state voltage	$dV/dt$	$T_J = T_{Jmax}$ linear to 67% $V_{DRM}$	-	-	1000	$\text{V}/\mu\text{s}$
Maximum peak on-state voltage	$V_{TM}$	172 A	-	-	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.**