

## **isc** Thyristors

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# S6008L

**TO-220** 

### DESCRIPTION

- With TO-220 isolated packaging
- Electrically-isolated package
- High surge capability
- Glass passivated junctions and center gate fire for greater parameter uniformity and stability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

· Switching applications

### ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

PARAMETER			MIN	UNIT				
Repetitive peak off-state voltage			600	V				
Repetitive peak reverse voltage			600	V				
RMS on-state current			8	Α				
Surge non-repetitive on-state current ( 1/2 cycle,sine wave;Tc=25℃)		50HZ 60HZ	83 100	Α				
Average gate power dissipation	Tp=8.3ms		0.5	W				
Operating junction temperature	9		-40~125	°C				
Storage temperature			-40~150	°C				
	PARAMETER   Repetitive peak off-state voltage   Repetitive peak reverse voltage   RMS on-state current   Surge non-repetitive on-state current   (1/2 cycle,sine wave;Tc=25°C )   Average gate power dissipation   Operating junction temperature	PARAMETER   Repetitive peak off-state voltage   Repetitive peak reverse voltage   RMS on-state current   Surge non-repetitive on-state current   (1/2 cycle,sine wave;Tc=25°C)   Average gate power dissipation   Tp=8.3ms   Operating junction temperature	PARAMETER   Repetitive peak off-state voltage   Repetitive peak reverse voltage   RMS on-state current   Surge non-repetitive on-state current ( 1/2 cycle,sine wave;Tc=25°C )   Average gate power dissipation   Tp=8.3ms   Operating junction temperature	PARAMETERMINRepetitive peak off-state voltage600Repetitive peak reverse voltage600RMS on-state current8Surge non-repetitive on-state current50HZ( 1/2 cycle,sine wave;Tc=25°C )50HZAverage gate power dissipationTp=8.3ms0.50perating junction temperature				

#### **ELECTRICAL CHARACTERISTICS (Tc=25**<sup>°</sup>C unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS		MIN	МАХ	UNIT
I <sub>RRM</sub>	Repetitive peak reverse current	V <sub>RM</sub> =V <sub>RRM</sub>	Tj=25℃		0.01	
I <sub>DRM</sub>	Repetitive peak off-state current	V <sub>DM</sub> =V <sub>DRM</sub>	Tj=100℃ Tj=125℃		0.2 0.5	mA
V <sub>TM</sub>	On-state voltage	I <sub>TM</sub> = 8A			1.6	V
I <sub>GT</sub>	Gate-trigger current	V <sub>D</sub> = 12 V; RL=60 Ω			15	mA
V <sub>GT</sub>	Gate-trigger voltage	V <sub>D</sub> = 12 V; RL=60 Ω			1.5	V
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case			3.0	°C/W

isc website: <u>www.iscsemi.com</u>

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