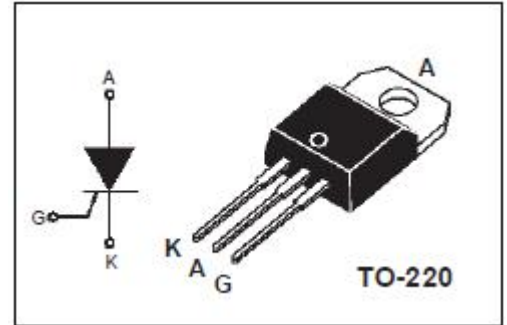


**isc Thyristors**
**S8012R**
**DESCRIPTION**

- With TO-220 packaging
- High heat dissipation and durability
- Thermowatt construction for low thermal
- 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 (T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	MIN	UNIT
V <sub>DRM</sub>	Repetitive peak off-state voltage	800	V
V <sub>RRM</sub>	Repetitive peak reverse voltage	800	V
I <sub>T(RMS)</sub>	RMS on-state current T <sub>c</sub> =105°C	12	A
I <sub>TSM</sub>	Surge non-repetitive on-state current ( 1/2 cycle,sine wave;T <sub>c</sub> =25°C )	50Hz 120 60Hz 100	A
P <sub>G(AV)</sub>	Average gate power dissipation	0.5	W
T <sub>j</sub>	Operating junction temperature	-40~125	°C
T <sub>stg</sub>	Storage temperature	-40~150	°C

**ELECTRICAL CHARACTERISTICS (T<sub>c</sub>=25°C unless otherwise specified)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
I <sub>RRM</sub>	Repetitive peak reverse current	V <sub>RM</sub> =V <sub>RRM</sub> V <sub>DM</sub> =V <sub>DRM</sub> T <sub>j</sub> =25°C T <sub>j</sub> =100°C T <sub>j</sub> =125°C		0.02	mA
I <sub>DRM</sub>	Repetitive peak off-state current		0.5 1		
V <sub>TM</sub>	On-state voltage	I <sub>TM</sub> = 12A		1.6	V
I <sub>GT</sub>	Gate-trigger current	V <sub>D</sub> = 12 V; R <sub>L</sub> =33 Ω	1	20	mA
V <sub>GT</sub>	Gate-trigger voltage	V <sub>D</sub> = 12 V; R <sub>L</sub> =33 Ω		1.5	V
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case		1.3	°C/W

**NOTICE:**

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