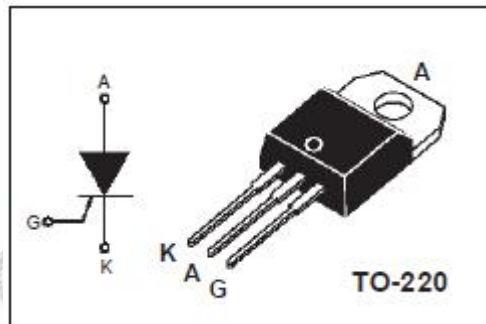


isc Thyristors

**TYN610**

**APPLICATIONS**

- It is suitable to fit all modes of control found in applications such as overvoltage crowbar protection, motor control circuits in power tools and kitchen aids, in-rush current limiting circuits, capacitive discharge ignition, voltage regulation circuits etc.
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



**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> =90°C	10	A	
I <sub>T(AV)</sub>	Average on-state current @T <sub>c</sub> =100°C	6.4	A	
I <sub>TSM</sub>	Surge non-repetitive on-state current	T <sub>p</sub> =8.3ms	105	A
		T <sub>p</sub> =10ms	100	
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>RRM</sub> Rated T <sub>j</sub> =25°C T <sub>j</sub> =110°C		0.01 2	mA
I <sub>DRM</sub>	Repetitive peak off-state current	V <sub>DRM</sub> Rated T <sub>j</sub> =25°C T <sub>j</sub> =110°C		0.01 2	mA
V <sub>TM</sub>	On-state voltage	I <sub>TM</sub> = 20A; T <sub>p</sub> =380 μ s		1.6	V
I <sub>GT</sub>	Gate-trigger current	V <sub>D</sub> = 12 V; R <sub>L</sub> =33 Ω		15	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		2.5	°C/W