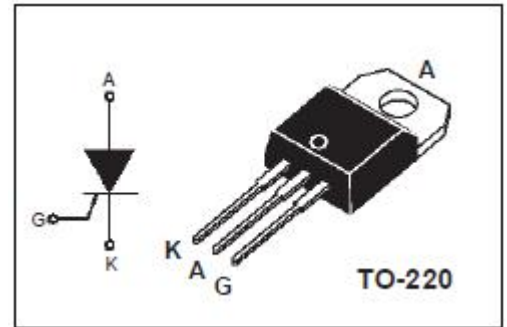


**isc Thyristors**
**TYN612TRG**
**DESCRIPTION**

- 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 ( $T_a=25^{\circ}\text{C}$ )**

SYMBOL	PARAMETER	MIN	UNIT	
$V_{\text{DRM}}$	Repetitive peak off-state voltage	600	V	
$V_{\text{RRM}}$	Repetitive peak reverse voltage	600	V	
$I_{\text{T(RMS)}}$	RMS on-state current $T_c=105^{\circ}\text{C}$	12	A	
$I_{\text{TSM}}$	Surge non-repetitive on-state current ( 1/2 cycle, sine wave; $T_c=25^{\circ}\text{C}$ )	50Hz	145	A
		60Hz	140	A
$P_{\text{G(AV)}}$	Average gate power dissipation	1.0	W	
$T_j$	Operating junction temperature	-40~125	$^{\circ}\text{C}$	
$T_{\text{stg}}$	Storage temperature	-40~150	$^{\circ}\text{C}$	

**ELECTRICAL CHARACTERISTICS ( $T_c=25^{\circ}\text{C}$  unless otherwise specified)**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$I_{\text{RRM}}$	Repetitive peak reverse current	$V_{\text{RM}}=V_{\text{RRM}}$ $V_{\text{DM}}=V_{\text{DRM}}$		0.005	mA
$I_{\text{DRM}}$	Repetitive peak off-state current				
$V_{\text{TM}}$	On-state voltage	$I_{\text{TM}}=24\text{A}$		1.6	V
$I_{\text{GT}}$	Gate-trigger current	$V_D = 12\text{V}; R_L=33\ \Omega$	0.5	5	mA
$V_{\text{GT}}$	Gate-trigger voltage	$V_D = 12\text{V}; R_L=33\ \Omega$		1.3	V
$R_{\text{th(j-c)}}$	Thermal resistance	Junction to case		1.3	$^{\circ}\text{C/W}$

**NOTICE:**

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