

## isc Thyristors

## TYN16X-600CT

## 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

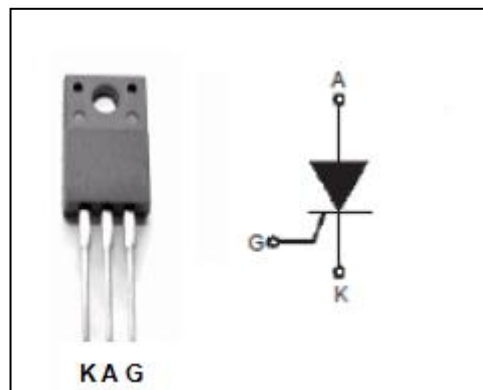
and reliable operation

ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}\text{C}$ )

SYMBOL	PARAMETER		Max	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	@ $T_h \leq 81^{\circ}\text{C}$	16	A
$I_{\text{T(AV)}}$	Average on-state current	@ $T_h \leq 81^{\circ}\text{C}$	10.2	A
$P_{\text{G(AV)}}$	Average gate power dissipation		1	W
$I_{\text{TSM}}$	Surge non-repetitive on-state current	$T_p=8.3\text{ms}$	198	A
		$T_p=10\text{ms}$	180	
$T_j$	Operating junction temperature		150	$^{\circ}\text{C}$
$T_{\text{stg}}$	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	$V_R = 600\text{ V}$	$T_j=150^{\circ}\text{C}$		1	mA
$I_{\text{DRM}}$	Repetitive peak off-state current	$V_D = 600\text{ V}$	$T_j=150^{\circ}\text{C}$		1	mA
$V_{\text{TM}}$	On-state voltage	$I_{\text{TM}}= 32\text{A}; T_j=25^{\circ}\text{C}$			1.6	V
$I_{\text{GT}}$	Gate-trigger current	$V_D = 12\text{ V}; I_T=0.1\text{A}; T_j=25^{\circ}\text{C}$			15	mA
$V_{\text{GT}}$	Gate-trigger voltage	$V_D = 12\text{ V}; I_T=0.1\text{A}; T_j=25^{\circ}\text{C}$			1.3	V
		$V_D = 400\text{ V}; I_T=0.1\text{A}; T_j=125^{\circ}\text{C}$		0.2		
$R_{\text{th(j-h)}}$	Thermal resistance	Junction to case			2.5	$^{\circ}\text{C/W}$



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