

isc Thyristors

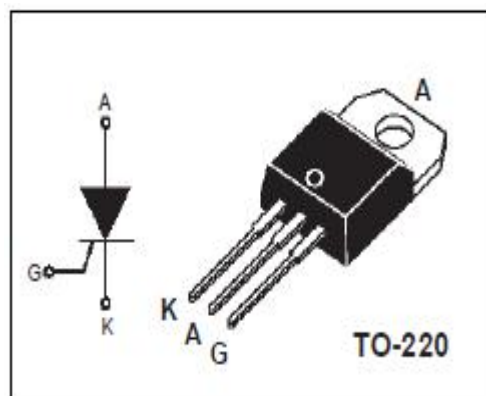
TYN1225

DESCRIPTION

- With TO-220 packaging
- Long-term stability
- Thyristor for line frequency
- Planar passivated chip
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching applications
- Line rectifying 50/60 Hz

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

SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage	1200	V
V_{RRM}	Repetitive peak reverse voltage	1200	V
$I_{\text{T(AV)}}$	Average forward current $T_c=96^\circ\text{C}$	16	A
$I_{\text{T(RMS)}}$	RMS on-state current	25	A
I_{TSM}	Surge non-repetitive on-state current (1/2 cycle,sine wave; $T_c=45^\circ\text{C}$)	50HZ 260 60HZ 250	A
$P_{\text{G(AV)}}$	Average gate power dissipation	0.5	W
T_j	Operating junction temperature	-40~125	$^\circ\text{C}$
T_{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_{RRM}	Repetitive peak reverse current	$V_{\text{RM}}=V_{\text{RRM}}$ $V_{\text{DM}}=V_{\text{DRM}}$ $T_j=25^\circ\text{C}$ $T_j=125^\circ\text{C}$		0.01	mA
I_{DRM}	Repetitive peak off-state current			4	
V_{TM}	On-state voltage	$I_{\text{TM}}=50\text{A}; t_p=380\mu\text{s}$		1.6	V
I_{GT}	Gate-trigger current	$V_D=12\text{V}; R_L=33\Omega$		40	mA
V_{GT}	Gate-trigger voltage	$V_D=12\text{V}; R_L=33\Omega$		1.5	V
$R_{\text{th(j-c)}}$	Thermal resistance	Junction to case		1.3	$^\circ\text{C/W}$

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