

isc Thyristors

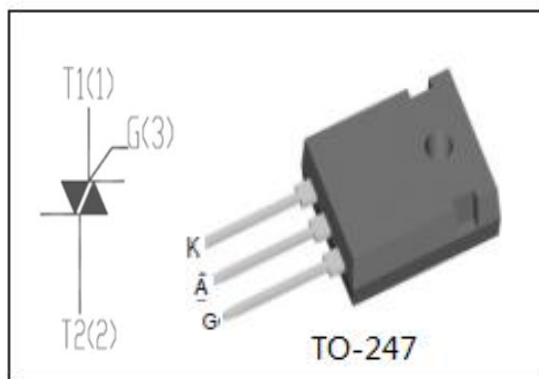
CLA80MT1200NHR

DESCRIPTION

- With TO-247 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 @ $T_c=100^{\circ}\text{C}$	40	A
$I_{\text{T(RMS)}}$	RMS on-state current	88	A
I_{TSM}	Surge non-repetitive on-state current (1/2 cycle,sine wave)	50HZ 60HZ	520 560
$P_{\text{G(AV)}}$	Average gate power dissipation	0.5	W
T_j	Operating junction temperature	-40~125	$^{\circ}\text{C}$
T_{stg}	Storage temperature	-40~150	$^{\circ}\text{C}$

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

SYMBOL	PARAMETER	CONDITIONS		MIN	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{RM}=V_{RRM}$ $V_{DM}=V_{DRM}$	$T_j=25^{\circ}\text{C}$		0.01 2	mA
I_{DRM}	Repetitive peak off-state current		$T_j=125^{\circ}\text{C}$			
V_{TM}	On-state voltage	$I_{TM}=40\text{A}$			1.3	V
I_{GT}	Gate-trigger current	$V_D=6\text{V}$			70	mA
V_{GT}	Gate-trigger voltage	$V_D=6\text{V}$			1.7	V
$R_{th(j-c)}$	Thermal resistance	Junction to case			0.65	$^{\circ}\text{C/W}$

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