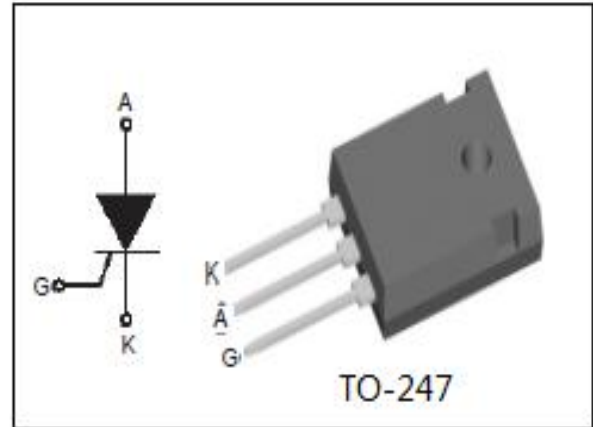


**isc Thyristors**
**CLA50E1200HB**
**DESCRIPTION**

- 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
$V_{\text{DRM}}$	Repetitive peak off-state voltage	1200	V
$V_{\text{RRM}}$	Repetitive peak reverse voltage	1200	V
$I_{\text{T(AV)}}$	Average forward current @ $T_c=150^{\circ}\text{C}$	50	A
$I_{\text{T(RMS)}}$	RMS on-state current	79	A
$I_{\text{TSM}}$	Surge non-repetitive on-state current ( 1/2 cycle,sine wave )	50HZ 60HZ	550 595
$P_{\text{G(AV)}}$	Average gate power dissipation	0.5	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	$V_{\text{RM}}=V_{\text{RRM}}$ $V_{\text{DM}}=V_{\text{DRM}}$		0.05 4	mA
$I_{\text{DRM}}$	Repetitive peak off-state current				
$V_{\text{TM}}$	On-state voltage	$I_{\text{TM}}=110\text{A}$		1.85	V
$I_{\text{GT}}$	Gate-trigger current	$V_{\text{D}}=6\text{V}$		1.6	mA
$V_{\text{GT}}$	Gate-trigger voltage	$V_{\text{D}}=6\text{V}$		1.5	V
$R_{\text{th(j-c)}}$	Thermal resistance	Junction to case		0.25	$^{\circ}\text{C/W}$



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