

isc Thyristors

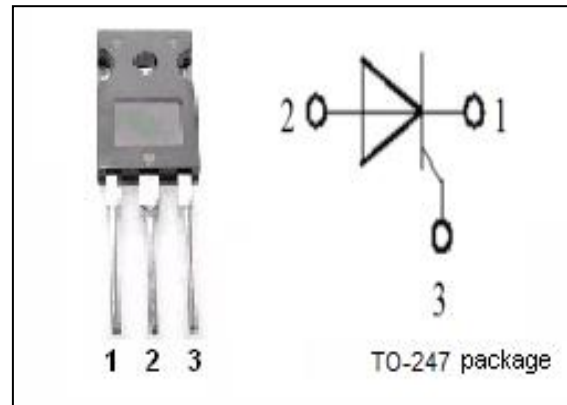
CLA40E1200HR

DESCRIPTION

- With TO-247 packaging
- High commutation capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching applications
- Battery charging system
- Uninterruptible power supply
- Variable speed motor drive
- Industrial welding systems
- By pass AC switch


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

SYMBOL	PARAMETER	MAX	UNIT
V_{DRM}	Repetitive peak off-state voltage	1200	V
V_{RRM}	Repetitive peak reverse voltage	1200	V
$I_{\text{T(RMS)}}$	Average on-state current @ $T_c=95^{\circ}\text{C}$	63	A
I_{TSM}	Surge non-repetitive on-state current 50Hz 60Hz	650 700	A
$P_{\text{G(AV)}}$	Average gate power dissipation (over any 20 ms period) @ $T_c=125^{\circ}\text{C}$	0.5	W
T_j	Operating junction temperature	-40~150	$^{\circ}\text{C}$
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	$V_R=V_{\text{RRM}}$ Rated; $T_j=25^{\circ}\text{C}$ $V_D=V_{\text{DRM}}$ Rated; $T_j=125^{\circ}\text{C}$		50	μA
I_{DRM}	Repetitive peak off-state current			4	mA
V_{TM}	On-state voltage	$I_T=40\text{A}; t_p=380\mu\text{s}$		1.25	V
I_{GT}	Gate-trigger current	$V_D=6\text{V}$		50	mA
V_{GT}	Gate-trigger voltage	$V_D=6\text{V}$		1.5	V
$R_{\text{th(j-c)}}$	Junction to case	For AC		0.8	$^{\circ}\text{C/W}$

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