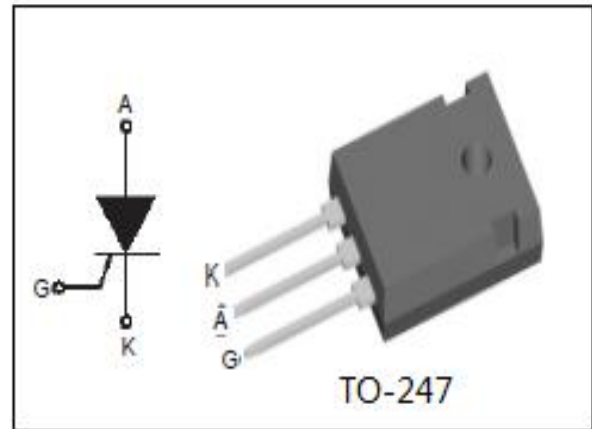


isc Thyristors
40TPS12A
DESCRIPTION

- 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 @ $T_c=79^{\circ}\text{C}$	35	A
$I_{\text{T(RMS)}}$	RMS on-state current	55	A
I_{TSM}	Surge non-repetitive on-state current (1/2 cycle,sine wave)	500 600	A
$P_{\text{G(AV)}}$	Average gate power dissipation	2.5	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°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°C T _j =125°C		0.5 10	mA
I _{DRM}	Repetitive peak off-state current					
V _{TM}	On-state voltage	I _{TM} = 110A			1.85	V
I _{GT}	Gate-trigger current	V _D = 6V			150	mA
V _{GT}	Gate-trigger voltage	V _D = 6V			2.5	V
R _{th(j-c)}	Thermal resistance	Junction to case			0.6	°C/W

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