

## isc Thyristors

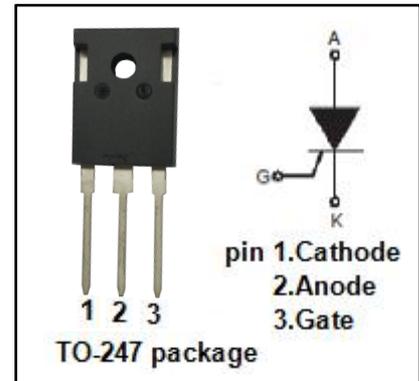
## ISCI365W

## 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	1600	V
$V_{\text{RRM}}$	Repetitive peak reverse voltage	1600	V
$I_{\text{T(RMS)}}$	RMS on-state current	55	A
$I_{\text{TSM}}$	Surge non-repetitive on-state current ( 1/2 cycle,sine wave )	520	A
$P_{\text{G(AV)}}$	Average gate power dissipation	1.0	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	$V_{\text{RM}}=V_{\text{RRM}}$		1	mA
$I_{\text{DRM}}$	Repetitive peak off-state current	$V_{\text{DM}}=V_{\text{DRM}}$	$T_j=25^\circ\text{C}$ $T_j=125^\circ\text{C}$	15	
$V_{\text{TM}}$	On-state voltage	$I_{\text{TM}}=80\text{A}$		1.6	V
$I_{\text{GT}}$	Gate-trigger current	$V_{\text{D}}=12\text{V}$	10	50	mA
$V_{\text{GT}}$	Gate-trigger voltage	$V_{\text{D}}=12\text{V}$		1.5	V
$R_{\text{th(j-c)}}$	Thermal resistance	Junction to case		0.6	$^\circ\text{C/W}$

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