

## isc Thyristors

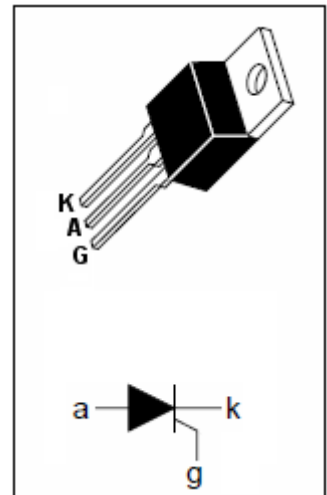
## TIC106D

## APPLICATIONS

- 5A continuous on-state current
- 30A surge-current
- Glass passivated
- Max  $I_{GT}$  of 200  $\mu$  A

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

SYMBOL	PARAMETER	MIN	UNIT
$V_{DRM}$	Repetitive peak off-state voltage	400	V
$V_{RRM}$	Repetitive peak reverse voltage	400	V
$I_{T(AV)}$	On-state current $T_c=80^\circ\text{C}$	3.2	A
$I_{T(RMS)}$	RMS on-state current $T_c=80^\circ\text{C}$	5	A
$I_{TM}$	Surge peak on-state current	30	A
$P_{GM}$	Peak gate power $P_w \leq 300 \mu$ s	1.3	W
$P_{G(AV)}$	Average gate power	0.3	W
$T_j$	Operating Junction temperature	110	$^\circ\text{C}$
$T_{stg}$	Storage temperature	-40 ~ +125	$^\circ\text{C}$
$R_{th(j-c)}$	Thermal resistance, junction to case	1.9	$^\circ\text{C/W}$
$R_{th(j-a)}$	Thermal resistance, junction to ambient	62.5	$^\circ\text{C/W}$

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$I_{RRM}$	Repetitive peak reverse current	$V_{RM}=V_{RRM}$ , $V_{RM}=V_{RRM}$ , $T_j=110^\circ\text{C}$			0.4 1.0	mA
$I_{DRM}$	Repetitive peak off-state current	$V_{DM}=V_{DRM}$ , $V_{DM}=V_{DRM}$ , $T_j=110^\circ\text{C}$			0.4 1.0	mA
$V_{TM}$	On-state voltage	$I_{TM}=5\text{A}$			1.7	V
$I_{GT}$	Gate-trigger current	$V_{AA}=6\text{V}$ ; $R_L=1\text{k}\Omega$			200	$\mu$ A
$V_{GT}$	Gate-trigger voltage	$V_{AA}=6\text{V}$ ; $R_L=100\Omega$			1.0	V
$I_H$	Holding current	$V_{AA}=6\text{V}$ ; $R_{GK}=1\text{k}\Omega$ , $I_T=10\text{mA}$			5	mA