

Thyristors

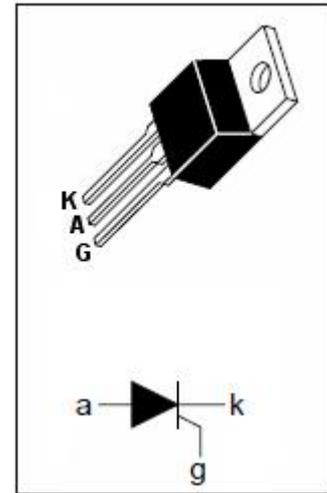
TIC106D

APPLICATIONS

- 5A continuous on-state current
- 30A surge-current
- Max I_{GT} of 200 μ 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 $P_w \leq 300 \mu\text{s}$	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	$V_{AA}=6\text{V}$; $R_L=100\ \Omega$			200	μA
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

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