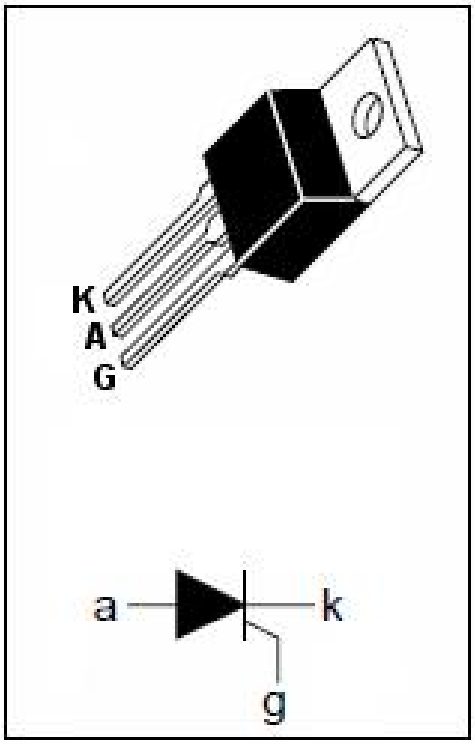
isc Thyristors TIC106series

DESCRIPTION

- 5A contimunous on-state current
- 30A surge-current
- Glass passivated
- Max I_{GT} of 200 μA
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{DRM}	Repetitive peakoff-state voltage	TIC106D	400	V
		TIC106M	600	
		TIC106S	700	
		TIC106N	800	
V_{RRM}	Repetitive peakreverse voltage	TIC106D	400	V
		TIC106M	600	
		TIC106S	700	
		TIC106N	800	
$I_{T(AV)}$	On-state current Tc=80℃		3.2	A
$I_{T(RMS)}$	RMS on-state current Tc=80℃		5	A
I_{TM}	Surge peak on-state current		30	A
P_{GM}	Peak gate power P_W≤300 μs		1.3	W
$P_{G(AV)}$	Average gate power		0.3	W
T_j	Operating Junction temperature		110	℃
T_{stg}	Storage temperature		-40 ~+125	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MIN	TYP	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case			3.5	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance,Junction to Ambient			62.5	℃/W

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	$V_{RM}=V_{RRM}$, $V_{RM}=V_{RRM}$, Tj=110℃			0.4 1.0	mA
I_{DRM}	Repetitive peak off-state current	$V_{DM}=V_{DRM}$, $V_{DM}=V_{DRM}$, Tj=110℃			0.4 1.0	mA
V_{TM}	On-state voltage	I_{TM}= 5A			1.7	V
I_{GT}	Gate-trigger current	V_{AA}=6V; R_L=1KΩ			200	μA
V_{GT}	Gate-trigger voltage	V_{AA}=6V; R_L=100Ω			1.2	V
I_H	Holding current	V_{AA}=6V; R_{GK}=1kΩ , I_T= 10mA			5	mA