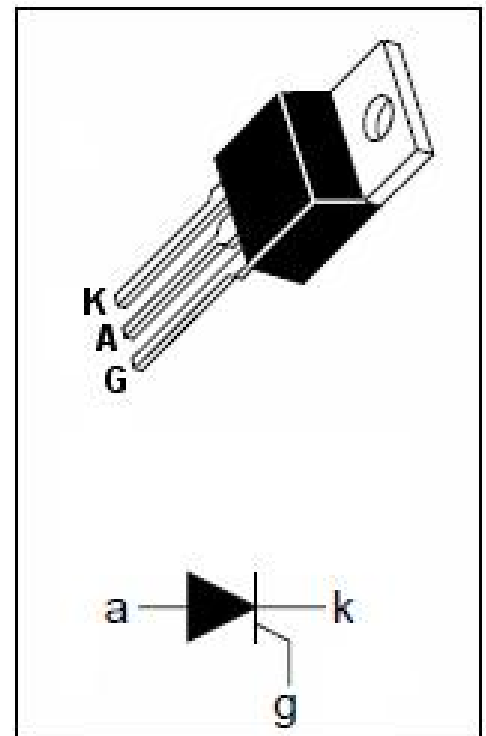


isc Thyristors
TIC116series
DESCRIPTION

- 8A continuous on-state current
- 80A surge-current
- Glass passivated Wafer
- 400V to 800V off-state Voltage
- Max I_{GT} of 20mA
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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

SYMBOL	PARAMETER		VALUE	UNIT	
V_{DRM}	Repetitive voltage	peakoff-state	TIC116D	400	V
			TIC116M	600	
			TIC116S	700	
			TIC116N	800	
V_{RRM}	Repetitive voltage	peakreverse	TIC116D	400	V
			TIC116M	600	
			TIC116S	700	
			TIC116N	800	
$I_{T(AV)}$	On-state current $T_c=70^\circ\text{C}$		5	A	
$I_{T(RMS)}$	RMS on-state current $T_c=70^\circ\text{C}$		8	A	
I_{TM}	Surge peak on-state current		80	A	
P_{GM}	Peak gate power $P_w \leq 300 \mu\text{s}$		5	W	
$P_{G(AV)}$	Average gate power		1	W	
T_j	Operating Junction temperature		110	$^\circ\text{C}$	
T_{stg}	Storage temperature		-40 ~ +125	$^\circ\text{C}$	



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MIN	TYP	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case			3	°C/W
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient			62.5	°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 2.0	mA
I_{DRM}	Repetitive peak off-state current	$V_{DM}=V_{DRM}$, $V_{DM}=V_{DRM}$, $T_j=110^\circ\text{C}$			0.4 2.0	mA
V_{TM}	On-state voltage	$I_{TM}=8\text{A}$			1.7	V
I_{GT}	Gate-trigger current	$V_{AA}=12\text{V}$; $R_L=100\ \Omega$			20	mA
V_{GT}	Gate-trigger voltage	$V_{AA}=12\text{V}$; $R_L=100\ \Omega$			1.5	V
I_H	Holding current	$V_{AA}=12\text{V}$; $I_T=100\text{mA}$			40	mA

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