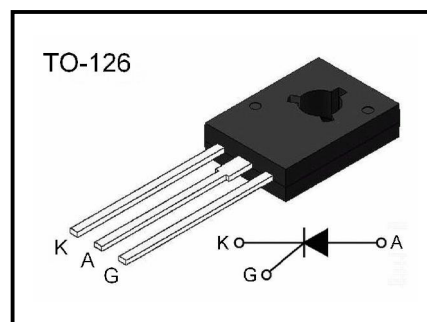


## Silicon Controlled Rectifier Reverse Blocking Triode Thyristors

Passivated thyristors in a plastic envelope, intended for use in Applications requiring high bidirectional blocking voltage capability and high thermal cycling performance. Typical applications include motor control, industrial domestic lighting, heating and staticand switching.



### Absolute Maximum Rating (Ta=25°C)

Parameter	Symbol	Value	Unit
Peak Repetitive Forward and Reverse Blocking Voltage	$V_{DRM}$ $V_{RRM}$	400	V
RMS Forward Current (All Conduction Angles)	$I_{T(RMS)}$	2	A
Average Forward Current (TA = 30°C)	$I_{T(AV)}$	1.5	A
Peak Non-repetitive Surge Current	$I_{TSM}$	15	A
Peak Gate Power	$P_{GM}$	0.5	W
Peak Forward Gate Current	$I_{GFM}$	0.2	A
Operating Junction Temperature Range	$T_J$	-40 ~ +110	°C
Storage Temperature Range	$T_{stg}$	-40 ~ +150	°C

### Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Peak Forward or Reverse Blocking Current	$I_{DRM}$ $I_{RRM}$	$V_D = V_{DRM}, V_R = V_{RRM}$			10	$\mu A$
On-State Voltage	$V_{TM}$	$I_T = 4 A$			1.7	V
Gate Trigger Current	$I_{GT}$	$V_D = 12 V; I_T = 0.1 A$		30	200	$\mu A$
Gate Trigger Voltage	$V_{GT}$	$V_D = 12 V; I_T = 0.1 A$			0.8	V
Holding Current	$I_H$	$V_D = 12 V; I_{GT} = 0.1 A$			3	mA
Forward Voltage Application Rate	dv/dt	$V_D = 60\% V_{DRM},$ $R_{GK} = 1K\Omega$			10	V/ $\mu s$

Typical Characteristics

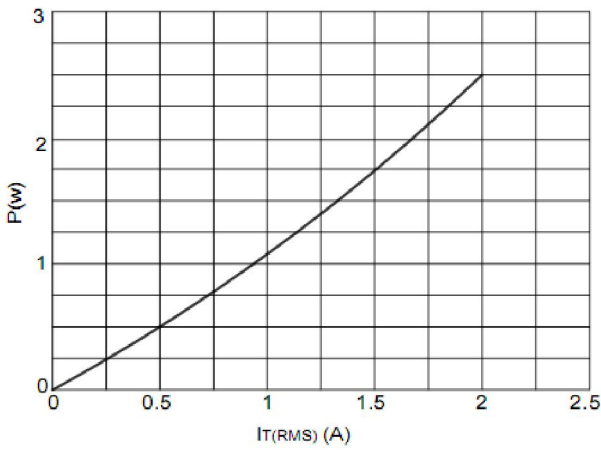


Figure 1. Maximum power dissipation vs RMS on-state current

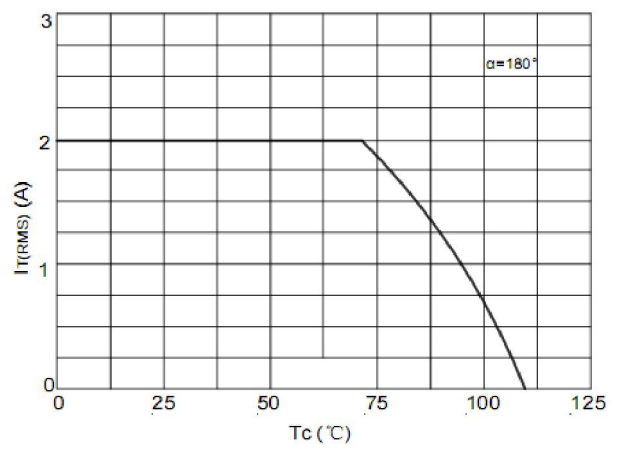


Figure 2. RMS on-state current vs case temperature

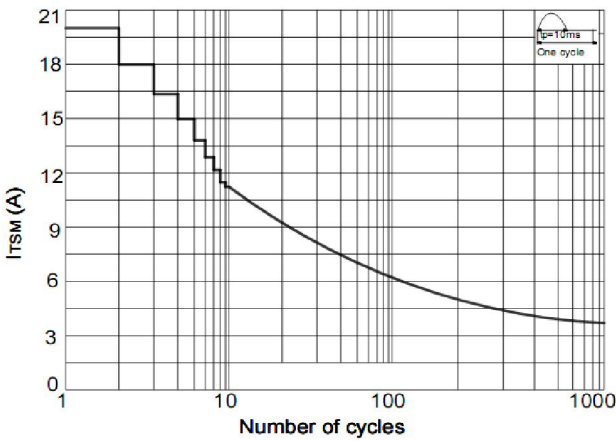


Figure 3. Surge peak on-state current vs number of cycles

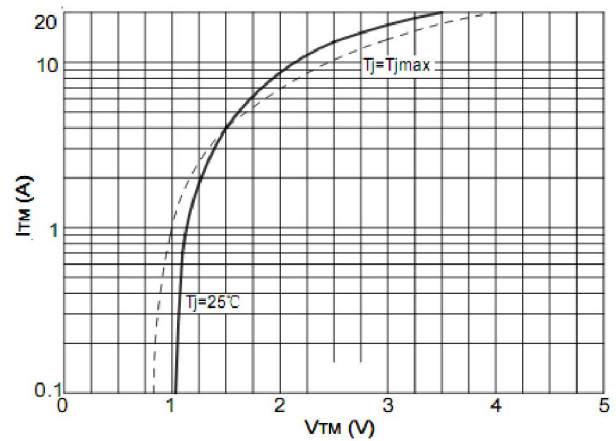


Figure 4. On-state characteristics

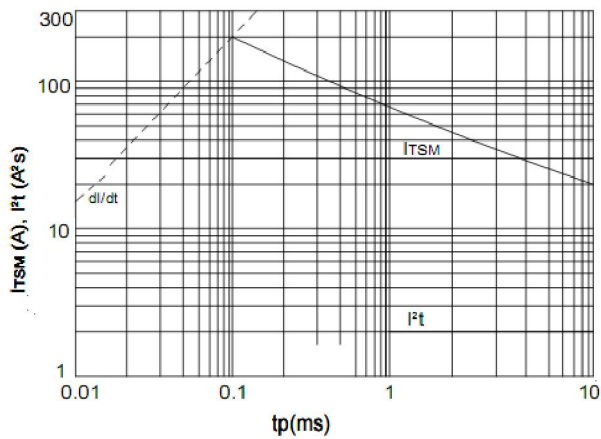


Figure 5. Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 10\text{ms}$ , and corresponding value of  $I_t$  ( $di/dt < 50\text{A}/\mu\text{s}$ )

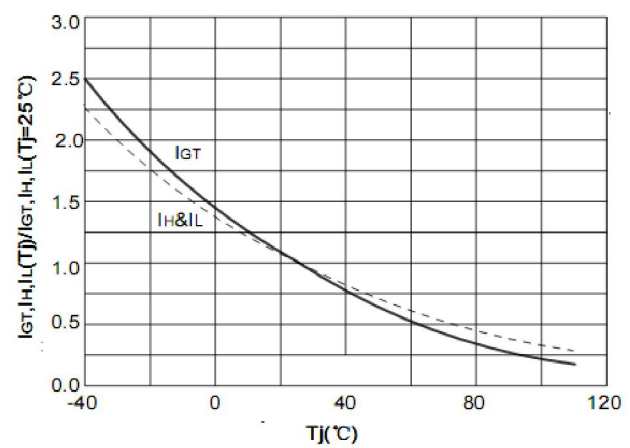


Figure 6. Relative variations of gate trigger current, holding current and latching current versus junction temperature

Package Dimensions

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.80	0.094	0.110
A1	1.00	1.40	0.039	0.055
b	0.66	0.86	0.026	0.034
b1	1.17	1.37	0.046	0.054
c	0.40	0.60	0.016	0.024
D	7.30	7.70	0.287	0.303
E	10.60	11.00	0.417	0.433
e	2.25	2.33	0.089	0.092
e1	4.50	4.66	0.177	0.183
L	14.00	15.00	0.551	0.591
L1	1.90	2.50	0.075	0.098
Φ	3.10	3.30	0.122	0.130