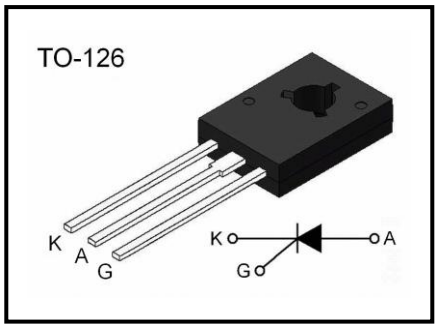
Silicon Controlled Rectifier
Reverse Blocking Triode Thyristors



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 (T_A = 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	Tstg	–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	μA
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	μA
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} = 1KΩ			10	V/μs

Typical Characteristics

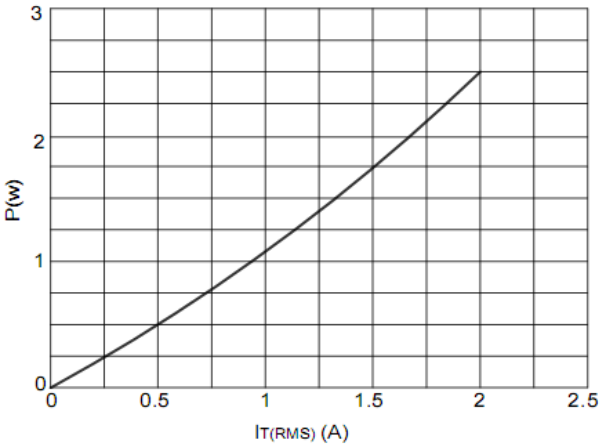


Figure 1. Maximum power dissipation vs RMSon-state current

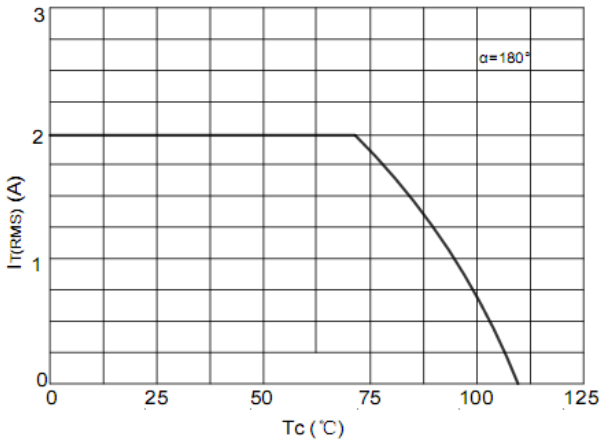


Figure 2. RMS on-state current vs casetemperature

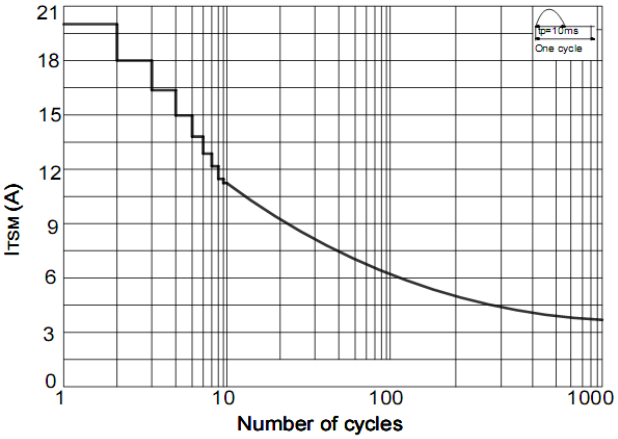


Figure 3. Surge peak on-state current vs number of cycles

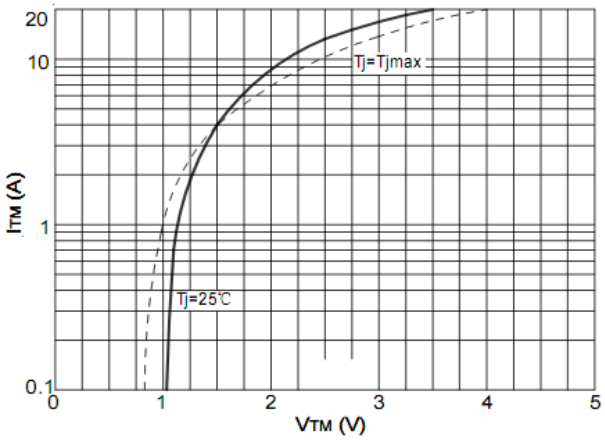


Figure 4. On-state characteristics

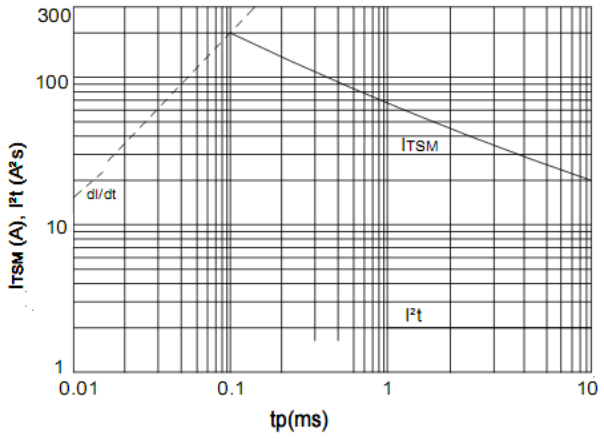


Figure 5. Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<10ms, and corresponging value of I t (dI/dt < 50A/ μ s)

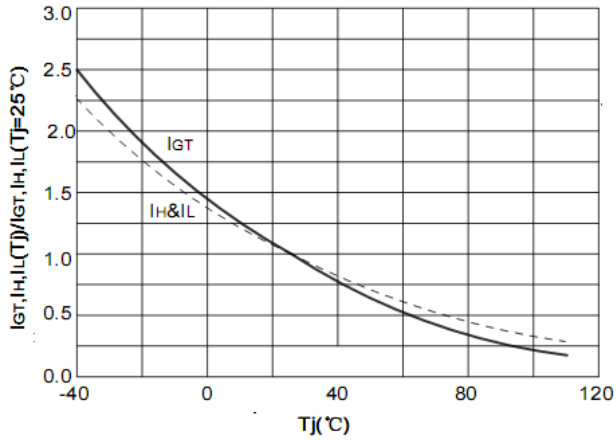
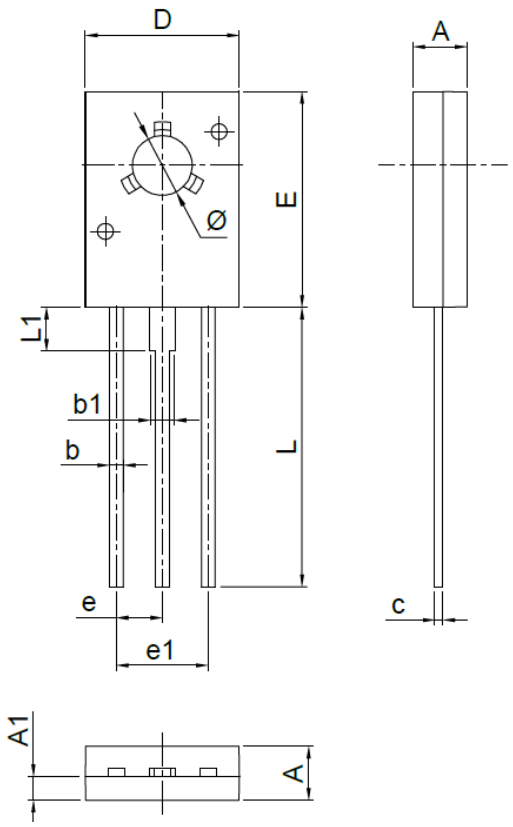


Figure 6. Relative variations of gate trigger current, holding current and latching current versus junction temperature

Package Dimensions



Dim	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