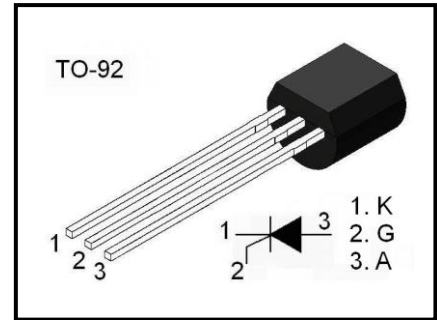


Passivated thyristors in a plastic envelope, intended for use in Applications requiring high bidirectional blocking voltage capability and high thermal cycling performance.

Typical applications include motor control, industrial domestic lighting, heating and staticand switching.


Absolute Maximum Rating (Ta=25°C)

Rating	Symbol	Value	Unit
Peak repetitive forward and reverse blocking voltage	V_{DRM}, V_{RRM}	600	V
RMS forward current (All conduction angles)	$I_{T(RMS)}$	3	A
Average forward current	$I_{T(AV)}$	2	A
Peak non-repetitive surge current	I_{TSM}	20	A
I^2t value for fusing(tp=10ms)	I^2t	2	A ² s
Average gate power dissipation	$P_{G(AV)}$	0.1	W
Peak forward gate current	I_{GM}	0.2	A
Operating junction temperature	T_j	-40 ~+110	°C
Storage temperature	T_{stg}	-40 ~ +150	°C

Electrical Characteristics (Ta=25°C)

Characteristic	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}	$I_T = 4 \text{ A}$			1.55	V
Gate trigger current	I_{GT}	$V_D = 12 \text{ V}; I_T = 10 \text{ m A}$			200	μA
Gate trigger voltage	V_{GT}	$V_D = 12 \text{ V}; I_T = 10 \text{ m A}$			0.8	V
Gate non-trigger voltage	V_{GD}	$V_D = 300 \text{ V}, T_j = 110^\circ \text{C}$	0.2			V
Latching current	I_L	$V_D = 12 \text{ V}; I_{GT} = 0.5 \text{ mA}$ $R_{GK} = 1 \text{ K}\Omega$			3	mA
Holding current	I_H	$V_D = 12 \text{ V}; I_{GT} = 0.5 \text{ mA}$ $R_{GK} = 1 \text{ K}\Omega$			4	mA
Forward voltage application rate	dv/dt	$V_D = 67\% V_{DRM},$ $R_{GK} = 1 \text{ K}\Omega$	10			V/μs

Typical Characteristics

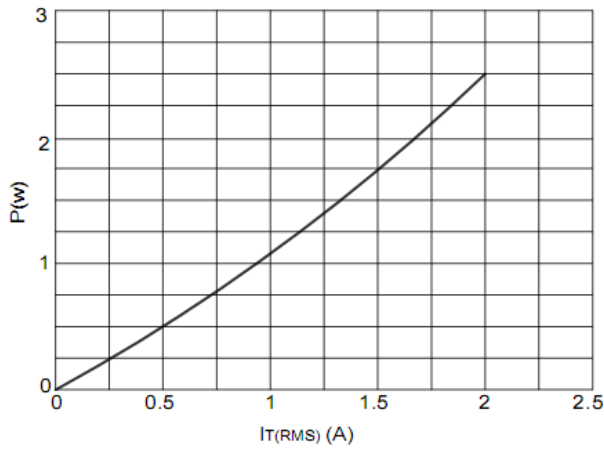


Figure 1. Maximum power dissipation vs RMS on-state current

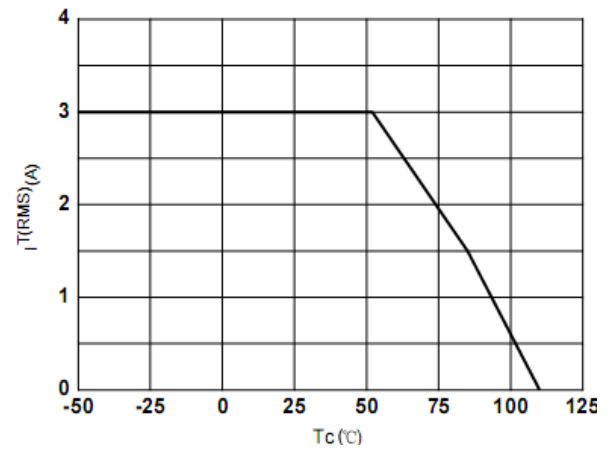


Figure 2. RMS on-state current vs case temperature

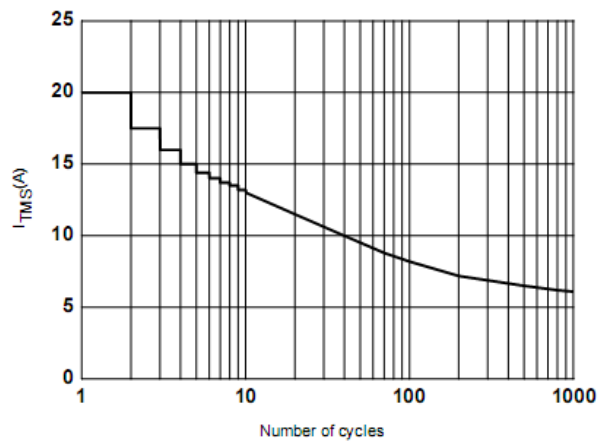


Figure 3. Surge peak on-state current vs number of cycles

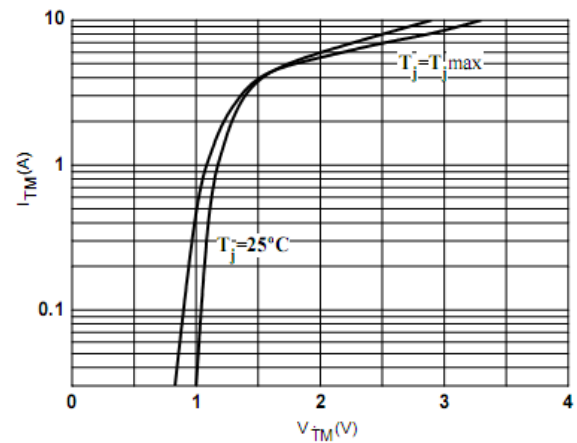


Figure 4. On-state characteristics

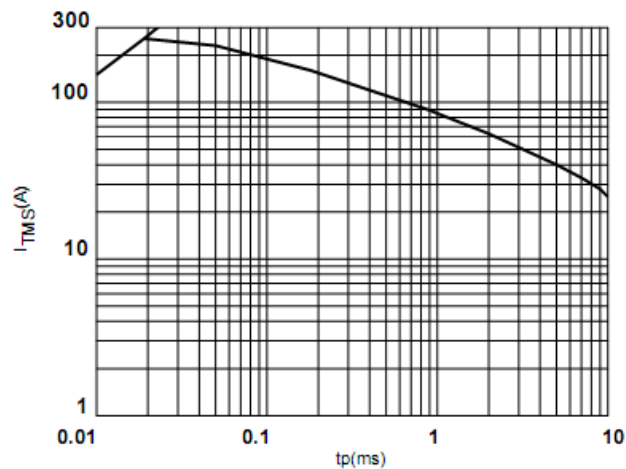


Figure 5. Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10\text{ms}$

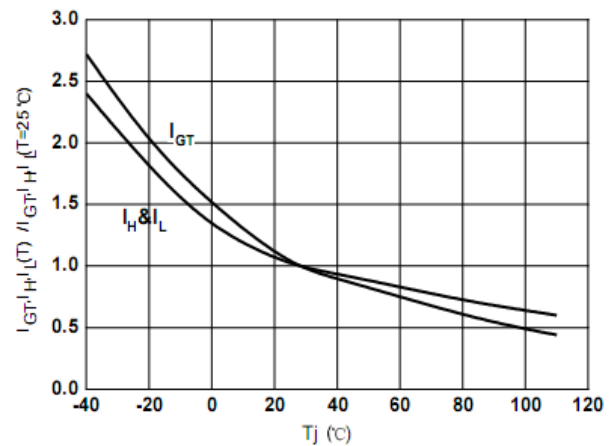


Figure 6. Relative variations of gate trigger current, holding current and latching current versus junction temperature

Package Dimensions

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.70	0.130	0.146
A1	2.30	2.70	0.091	0.106
b	0.40	0.50	0.016	0.020
b1	0.50	0.70	0.020	0.028
c	0.35	0.45	0.014	0.018
D	4.45	4.70	0.175	0.185
E	4.40	4.65	0.173	0.183
e	1.17	1.37	0.046	0.054
e1	2.34	2.64	0.092	0.104
L	13.50	14.50	0.531	0.571
L1	1.80	2.20	0.071	0.087