

PSTTR02 Sensitive Thyristor

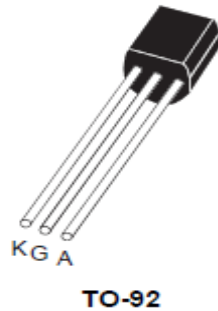
■ Features

- $I_{T(AV)}$:0.8A • I_{GT} : 200 μ A • Glass Passivation Type • Non-Insulated Type

■ Applications

- Leakage protector, timer, and gas igniter • Temperature controller

■ Outline



■ Maximum Ratings ($T_a=25^{\circ}\text{C}$)

Parameter	Symbol	Voltage class		Unit
		-6	-8	
Repetitive peak reverse voltage	V_{RRM}	600	800	V
Repetitive peak off-state voltage	V_{DRM}	600	800	V
RMS on-state current	$I_{T(RMS)}$	1.25		A
Average on-state current	$I_{T(AV)}$	0.8		A
Surge on-state current	I_{TSM}	22.5		A
I^2t for fusing	I^2t	2.5		A^2s
Average gate power dissipation	$P_{G(AV)}$	0.2		W
Peak gate reverse voltage	V_{RGM}	8		V
Peak gate forward current	I_{FGM}	1.2		A
Junction temperature	T_j	- 40 to +125		$^{\circ}\text{C}$
Storage temperature	T_{stg}	- 40 to +150		$^{\circ}\text{C}$



■ Electrical Characteristics

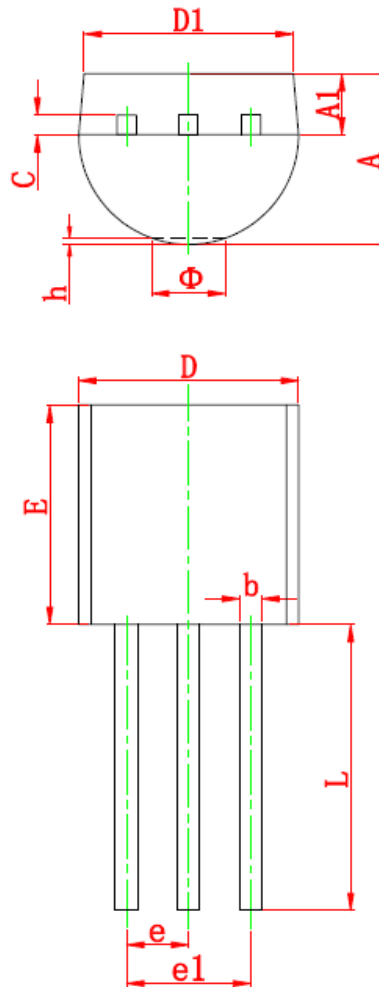
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test conditions
Repetitive peak reverse current	I_{RRM}	—	—	0.5	mA	$T_j = 125^{\circ}\text{C}$, V_{RRM} applied
Repetitive peak off-state current	I_{DRM}	—	—	0.5	mA	$T_j = 125^{\circ}\text{C}$, V_{DRM} applied, $R_{GK} = 1\text{ k}\Omega$
On-state voltage	V_{TM}	—	—	1.45	V	$T_a = 25^{\circ}\text{C}$, $I_{TM} = 2.5\text{A}$
Gate trigger voltage	V_{GT}	—	—	0.8	V	$T_j = 25^{\circ}\text{C}$, $V_D = 12\text{ V}$, $R_L = 140\Omega$
Gate non-trigger voltage	V_{GD}	0.1	—	—	V	$T_j = 125^{\circ}\text{C}$, $V_D = V_{DRM}$, $R_{GK} = 1\text{ k}\Omega$
Gate trigger current	I_{GT}	20	—	200	μA	$T_j = 25^{\circ}\text{C}$, $V_D = 12\text{ V}$, $R_L = 140\Omega$
Holding current	I_H	—	—	5	mA	$T_j = 25^{\circ}\text{C}$, $V_D = 12\text{ V}$, $R_{GK} = 1\text{ k}\Omega$
Thermal resistance	$R_{th(j-a)}$	—	—	150	$^{\circ}\text{C/W}$	Junction to ambient

■ Trigger Current Item

Item	A	B	C	D	E	F
$I_{GT} (\mu\text{A})$	20 to 50	40 to 80	70 to 100	20 to 80	20 to 100	100 to 200



■ TO-92 Package Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

