

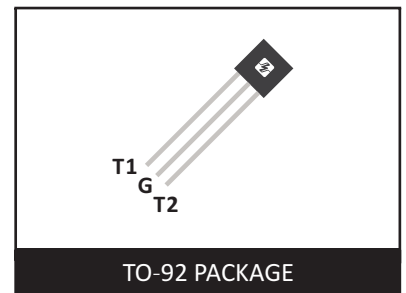
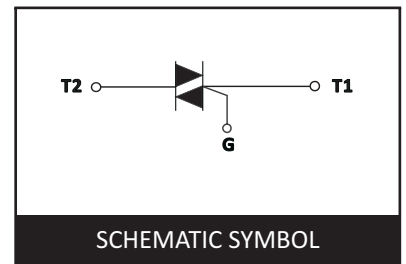
LOGIC LEVEL BI-DIRECTIONAL TRIODE THYRISTOR

DESCRIPTION

General purpose switching and phase control applications .These devices are intended to be interfaced directly to microcontrollers , logic integrated circuits and other low power gate trigger circuits such as fan speed and temperature modulation control , lighting control and static switching relay.

FEATURES

- Repetitive Peak off-State Voltage: 600V
- R.M.S On-State Current($I_{T(RMS)}=0.8A$)
- Low on-state voltage: $V_{TM}=1.5(\text{typ.})@ I_{TM}$
- Low reverse and forward blocking current:
- High Commutation dV/dt .



ABSOLUTE MAXIMUM RATINGS ($T_J = 25^{\circ}\text{C}$ UNLESS OTHERWISE SPECIFIED)

Symbol	Parameter	Condition	Ratings	Units
V_{DRM}	Repetitive Peak Off-State Voltage		600	V
V_{RRM}	Repetitive Peak Reverse Voltage		600	V
$I_{T(RMS)}$	R.M.S On-State Current	All Conduction Angle	0.8	A
I_{TSM}	Surge OnState Current	$F=50\text{Hz}, t_p=10\text{ms}$	9.0	A
I^2t	I^2t for Fusing	$t_p=10\text{ms}$	0.40	A^2S
P_{GM}	Forward Peak Gate Power Dissipation		1.0	W
$P_{G(AV)}$	Forward Average Gate Power Dissipation		0.1	W
I_{GM}	Peak Gate Current		1.0	A
T_J	Operating Junction Temperature		-40~125	$^{\circ}\text{C}$
T_{STG}	Storage Temperature		-40~125	$^{\circ}\text{C}$

THERMAL RESISTANCES

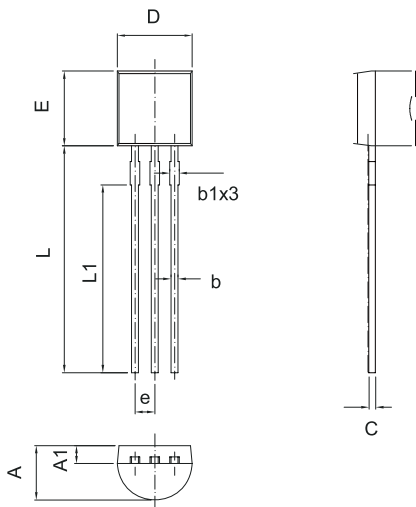
Symbol	Parameter		Value	Unit
$R_{th(j-c)}$	Junction to Case	TO-92	60	$^{\circ}\text{C}/\text{W}$
$R_{th(j-a)}$	Junction to Ambient	TO-92	120	$^{\circ}\text{C}/\text{W}$

ELECTRICAL CHARACTERISTICS ($T_C = 25\text{ }^\circ\text{C}$ UNLESS OTHERWISE NOTED)

Symbol	Items	Conditions	Ratings			Unit	
			Min.	Typ.	Max.		
I_{DRM}	Repetitive Peak Off-State Current	$V_D = V_{DRM}$	$T_C = 25\text{ }^\circ\text{C}$	—	—	5.0	uA
			$T_C = 125\text{ }^\circ\text{C}$	—	—	100	
V_{TM}	Peak On-State Voltage	$I_{TM} = 1.1\text{A}$	—	—	1.5	V	
I_{GT}	Gate Trigger Current	$V_D = 12\text{V}$	I III IV	—	—	5.0	mA
			II	—	—	7.0	
V_{GT}	Gate Trigger Voltage	$V_D = 12\text{V}$	—	—	1.3	V	
V_{GD}	Non-Trigger Gate Voltage	$V_D = V_{DRM}, R_L = 3.3\text{Kohm}, T_J = 125\text{ }^\circ\text{C}$	0.2	—	—	V	
dv/dt	Critical Rate of Rise Off-State Voltage	$V_D = 2/3V_{DRM}, T_J = 125\text{ }^\circ\text{C}$	30	—	—	V/uS	
I_H	Holding Current	$I_T = 0.2\text{A}$	—	—	5.0	mA	
I_L	Latching current	$I_G = 1.2I_{GT}$	I III IV	—	—	10	mA
			II	—	—	15	

PACKAGE MECHANICAL DATA

Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min.	Max.	Min.	Max.
A	3.3	3.7	0.13	0.146
A1	1.1	1.4	0.043	0.055
b	0.34	0.55	0.013	0.022
b1	0.5	0.7	0.02	0.028
C	0.34	0.54	0.013	0.021
D	4.33	4.83	0.17	0.19
E	4.33	4.83	0.17	0.19
e	1.27 TYP		0.05 TYP	
L	14.07	14.87	0.554	0.585
L1	12.47 TYP		0.491 TYP	



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