

DESCRIPTION

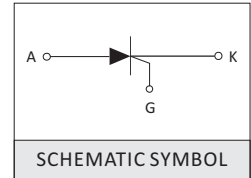
PNPN devices designed for high volume, line-powered consumer applications such as relay and lamp drivers, small motor controls, gate drivers for larger thyristors, and sensing and detection circuits.

FEATURES

- > High voltage capability
- > Planar passivated for voltage ruggedness and reliability
- > Sensitive gate

APPLICATIONS

- > Ignition circuits
- > Lighting ballasts
- > Protection circuits
- > Switched Mode Power Supplies



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Conditions	Value	Units
Repetitive peak off-state voltage	V_{DRM}	$T_j=25^{\circ}C$	800	V
Repetitive peak reverse voltage	V_{RRM}	$T_j=25^{\circ}C$	800	V
RMS on-state current	$I_{T(RMS)}$	$T_c=65^{\circ}C$	1.2	A
Non repetitive surge peak on-state current	I_{TSM}	1/2Cycle,60Hz,SineWave Non-Repetitive	10	A
I^2t value for fusing	I^2t	$t=8.3ms$	0.72	A^2s
Critical rate of rise of on-state current	di/dt		50	A/us
Forward Peak gate current	I_{FGM}		1	A
Average gate power dissipation	$P_{G(AV)}$	$T_j=110^{\circ}C$	0.1	W
Peak gate power	P_{GM}	$t_p=20\mu s, T_j=110^{\circ}C$	0.5	W
Storage junction temperature range	T_{stg}		-40 to 125	$^{\circ}C$
Operating junction temperature range	T_j		-40 to 125	$^{\circ}C$

ELECTRICAL CHARACTERISTICS ($T_j=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Value			Units
			Min.	Typ.	Max.	
Gate trigger current	I_{GT}	$V_{AK}=6V, R_L=100ohm$	-	-	200	μA
Gate trigger voltage	V_{GT}	$V_D=7V, R_L=100ohm$	-	-	0.8	V
Gate no-trigger Voltage	V_{GD}	$V_{AK}=12V, R_L=100ohm, T_c=125^{\circ}C$	0.2	-	-	V
Holding current	I_H	$V_{AK}=12V$	-	2	5	mA
Rate of rise of off-state voltage	dv/dt	$V_D=Rated V_{DRM} T_j=125^{\circ}C R_{GK}=1K\Omega$	20	35	-	V/us

STATIC CHARACTERISTICS

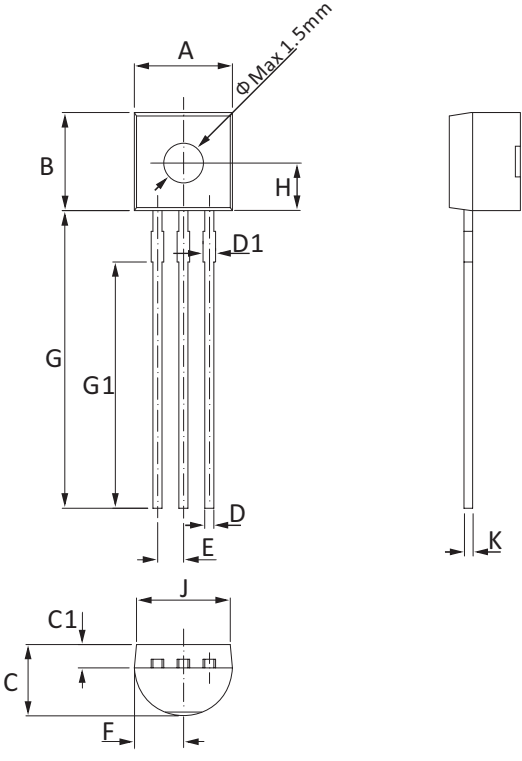
Parameter	Symbol	Test Conditions	Value	Units
On-state voltage	V_{TM}	$I_T=1.0A$	≤ 1.7	V
Repetitive peak off-state current	I_{DRM}	$V_{AK}=V_{DRM}$ or V_{RRM} ; $R_{GK}=1000\Omega$	≤ 10.0	μA

THERMAL RESISTANCES

Parameter	Symbol	Value	Units
Junction to case	$R_{th(j-c)}$	70	$^{\circ}C/W$

PACKAGE OUTLINE DIMENSIONS

Parameter	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.450	5.200	0.175	0.205
B	4.320	5.330	0.170	0.210
C	3.180	4.190	0.125	0.165
C1	1.100 Typ.		0.043 Typ.	
D	0.407	0.533	0.016	0.021
D1	0.600	0.800	0.024	0.031
E	1.270 Typ.		0.050 Typ.	
F	2.040	2.660	0.080	0.105
G	12.700	15.000	0.500	0.591
G1	10.840	12.940	0.427	0.509
H	2.300 Typ.		0.091 Typ.	
J	-	4.300	-	0.169
K	0.360	0.500	0.014	0.020



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