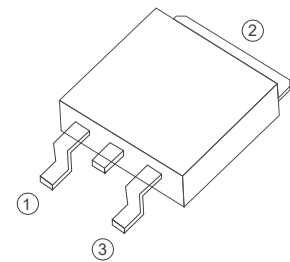


IT(RMS)		4A
VDRM/VRRM		600V
VTM		1.7V



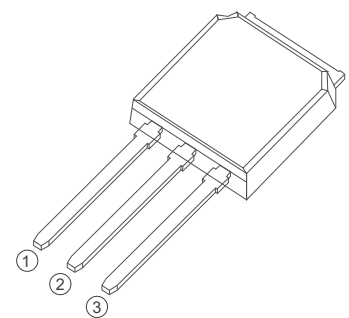
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FEATURES

IT(RMS): 4A

VGT: 0.8V

VDRM VRRM:600V



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APPLICATIONS

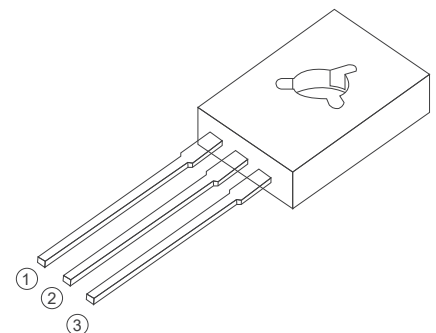
Heater Control

Motor Speed Controller

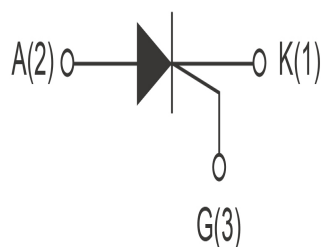
Washing machine

Vacuums

Solid state relay



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Absolute Maximum Ratings (T_j=25°C unless otherwise specified)

Symbol	Parameter	Conditions	Ratings	Unit
V _{DRM} V _{RRM}	Repetitive Peak Off-State Voltage		600	V
I _{T(RMS)}	R.M.S On-State Current		4	A
I _{T(AV)}	average On-State Current		2.5	A
I _{TSM}	Surge On-State Current	F=50Hz, t _p =10ms	30	A
I ² t	I ² t for fusing	T _p =10ms	4.5	A ² s
I _{GM}	Peak Gate Current	t _p =20us T _j =110°C	0.2	A
P _{G(AV)}	Average Gate Power Dissipation	T _j =110°C	0.2	W
P _{GM}	Peak Gate Power Dissipation	t _p =20us T _j =110°C	1	W
T _j	Operating Junction Temperature		~ 40~125	°C
T _{STG}	Storage Temperature		~ 40~150	°C

Electrical Characteristics (T_j=25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Value	Unit
I _{DRM}	Repetitive Peak Off-State Current	T _c =25°C	≤5	uA
		T _c =110°C	≤100	uA
I _{RRM}	Repetitive Peak Reverse Current	T _j =25°C	≤5	uA
		T _j =110°C	≤100	uA
V _{TM}	Forward "on" voltage	I _T =8A t _p =380us	≤1.7	V
V _{GD}	Gate nontrigger voltage	V _D =V _{DRM} , T _j =125°C	≥0.2	V
I _L	Latching current	I _G =1.2I _{GT}	≤6	mA
I _H	Holding current	V _D =12V, I _{GT} =0.1A	≤5	mA
V _{GT}	Gate trigger voltage	V _D =12V	≤0.8	V
I _{GT}	Gate trigger current	V _D =12V, I _T =0.1A	≤120	uA
dv/dt	Critical-rate of rise of commutation voltage	V _D =2/3V _{DRM} , T _j =110°C, R _{GK} =1KΩ	≥10	V/us

FIG1

Maximum power dissipation versus RMS on-state current

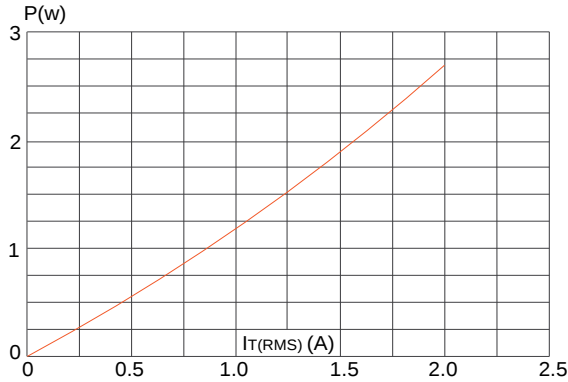


FIG2

RMS on-state current versus case temperature

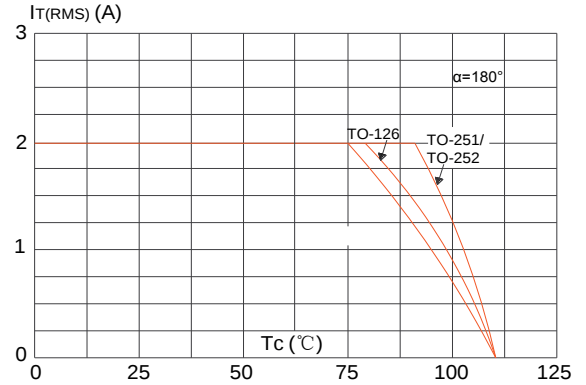


FIG3

Surge peak on-state current versus number of cycles

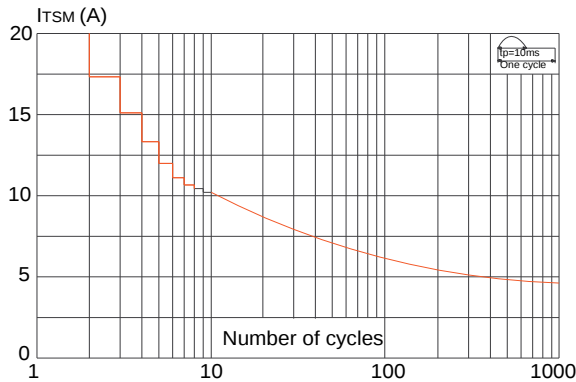


FIG4

On-state characteristics (maximum values)

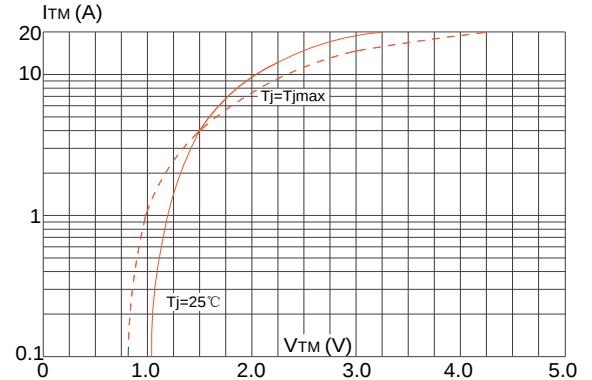


FIG5

Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t ($di/dt < 100\text{A}/\mu\text{s}$)

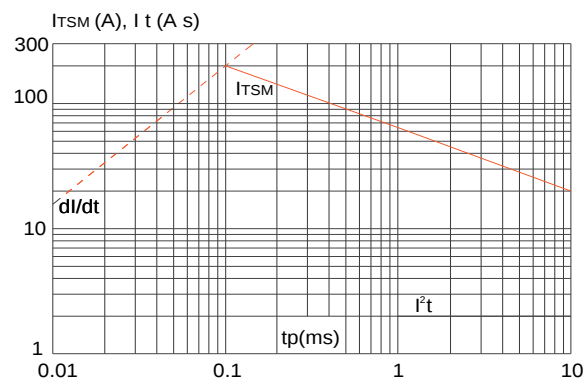
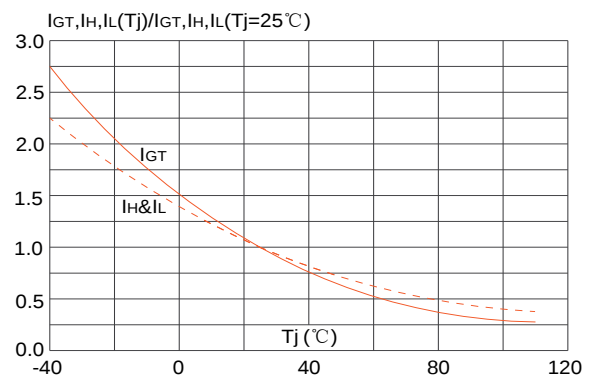
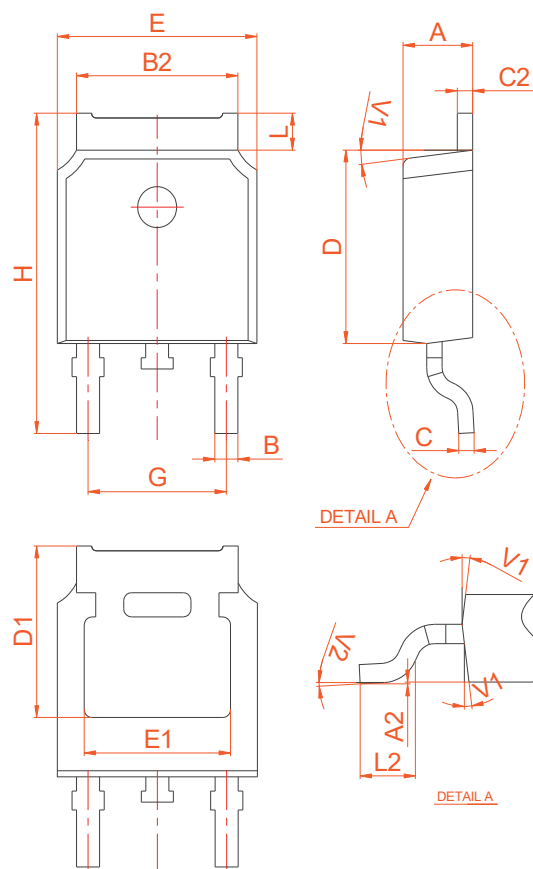


FIG6

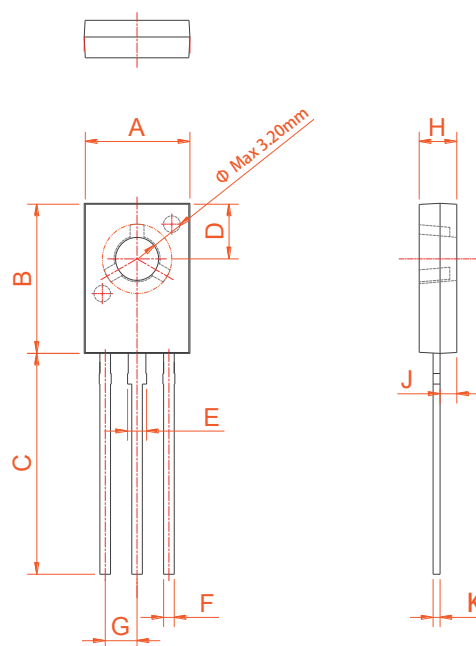
FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

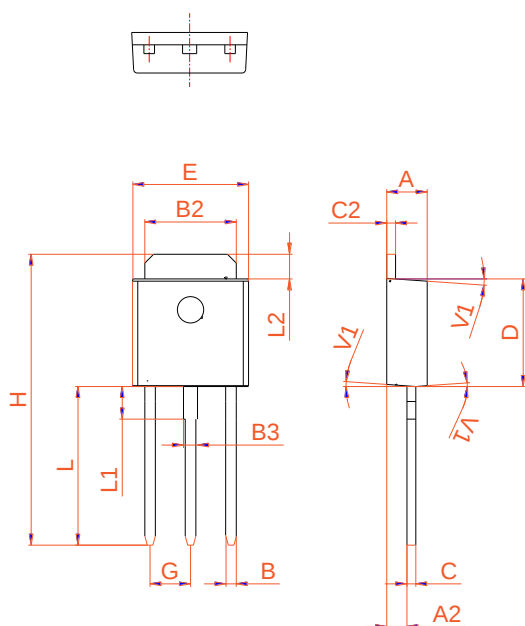


PACKAGE MECHANICAL DATA

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Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.20		2.40	0.086		0.095
A2	0.03		0.23	0.001		0.009
B	0.55		0.65	0.022		0.026
B2	5.10		5.40	0.200		0.213
C	0.45		0.55	0.018		0.022
C2	2.70		2.90	0.106		0.114
D	6.00		6.20	0.236		0.244
E	6.40		6.70	0.252		0.264
G	4.40		4.70	0.173		0.185
H	9.35		10.6	0.368		0.417
L1	1.30		1.70	0.051		0.067
L2	1.37		1.50	0.054		0.059
L3		0.8			0.031	
L4		0.8			0.031	
V1		4°			4°	
V2	0°		8°	0°		8°

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	7.40		7.80	0.291		0.307
B	10.6		11.2	0.417		0.441
C	15.3		16.3	0.602		0.642
D	3.90		4.10	0.154		0.161
E	1.17		1.47	0.046		0.058
F	0.66		0.86	0.026		0.034
G		2.29			0.090	
H	2.50		2.90	0.098		0.114
J	1.10		1.50	0.043		0.059
K	0.45		0.60	0.018		0.024


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PACKAGE MECHANICAL DATA

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Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.20		2.40	0.086		0.095
A2	0.90		1.20	0.035		0.047
B	0.55		0.65	0.022		0.026
B2	5.10		5.40	0.200		0.213
B3	0.76		0.85	0.030		0.033
C	0.45		0.62	0.018		0.024
C2	0.48		0.62	0.019		0.024
D	6.00		6.20	0.236		0.244
E	6.40		6.70	0.252		0.264
G		2.30			0.091	
H	16.0		17.0	0.630		0.669
L	8.90		9.40	0.350		0.370
L1	1.80		1.90	0.071		0.075
L2	1.37		1.50	0.054		0.059
V1		4°			4°	