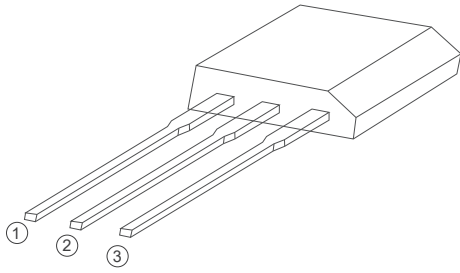
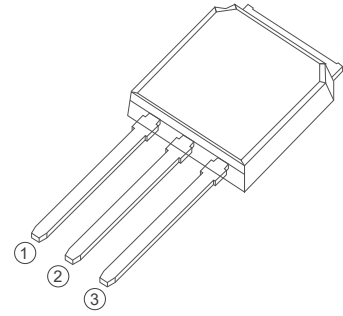


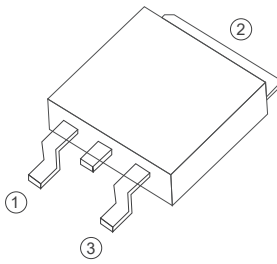
Z04 Series
4A TRIACs
4 Quadrants



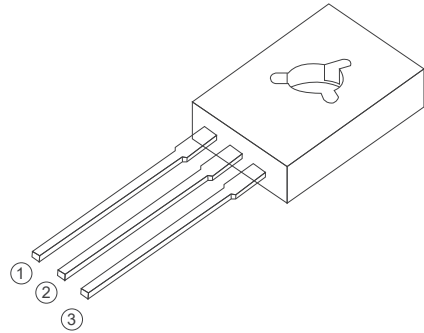
TO-202-3



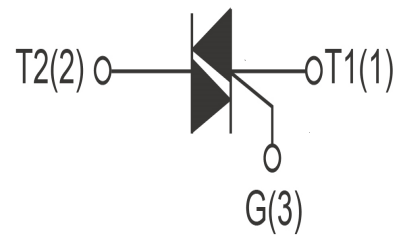
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FEATURES

> IT(RMS): 4A > VGT: 1.5V > VDRM VRRM:600V

APPLICATIONS

Washing machine, vacuums, massager, solid state relay, AC Motor speed regulation and so on.

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

Symbol	Parameter	Conditions	Ratings	Unit
VDRM VRRM	Repetitive Peak Off-State Voltage		600	V
I _T (RMS)	R.M.S On-State Current	T _c =110°C	4	A
I _{TSM}	Surge On-State Current	T _p =10ms/t _p =16.7ms	20/21	A
I ² t	I ² t for fusing	T _p =10ms	2.2	A ² s
I _{GM}	Peak Gate Current	T _j =150°C	1.2	A
PG(AV)	Average Gate Power Dissipation	T _j =125°C	0.2	W
T _j	Operating Junction Temperature		~40~125	°C
TSTG	Storage Temperature		~40~150	°C

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

Symbol	Parameter	Test Conditions	Value				Unit
			02	05	09	10	
IDRM	Repetitive Peak Off-State Current	T _j =25°C	≤5				uA
		T _j =125°C	≤0.5				mA
IRRM	Repetitive Peak Reverse Current	T _j =25°C	≤5				uA
		T _j =125°C	≤0.5				mA
IGT	Gate trigger current	I,II,III VD=12V IGT==0.1A	≤35	≤5	≤10	≤25	mA
VTM	Forward "on" voltage	I _T =5A t _p =380us	≤1.3				V
VGD	Gate non-trigger current	VD=VDRM, T _j =125°C	≥0.2				V
VGT	Gate trigger current	VD=12V	≤1.5				V
I _H	Holding current	I _T =0.2A	≤35	≤5	≤10	≤25	mA
di/dt	Critical-rate of rise of commutation current.	I,II,III I _T =6A, I _G =0.2A, DIG/Dt =0.2A/us	≥20				A ² /us
dv/dt	Critical-rate of rise of commutation voltage	T _J =125°C VD=2/3VDRM Gate	10	20	100	200	V/us
R _{th(j-c)}	Thermal resistance	Junction to case	15				°C/W

FIG1

Maximum power dissipation versus RMS on-state current

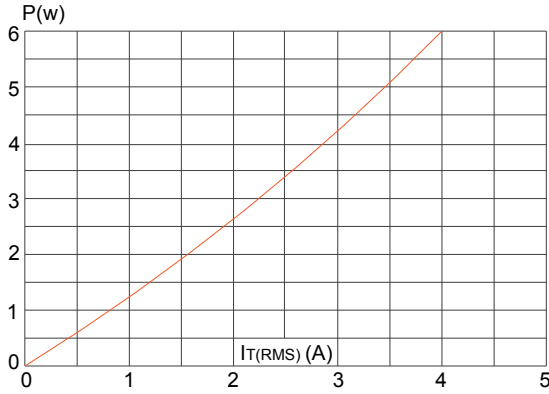


FIG2

RMS on-state current versus case temperature

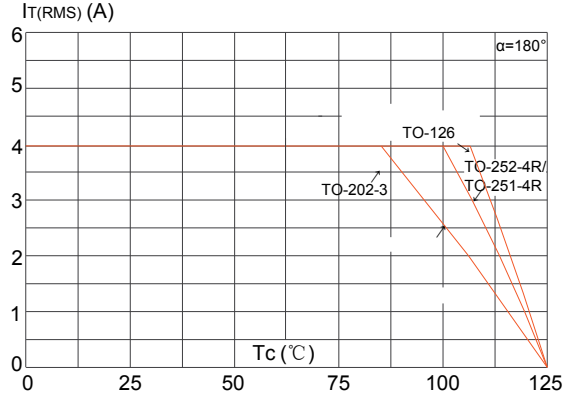


FIG3

Surge peak on-state current versus number of cycles

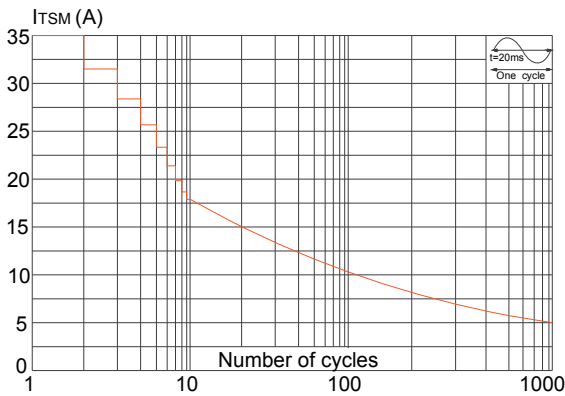


FIG4

On-state characteristics (maximum values)

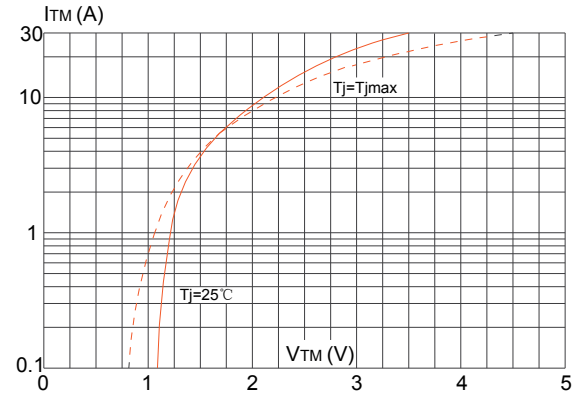


FIG5

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

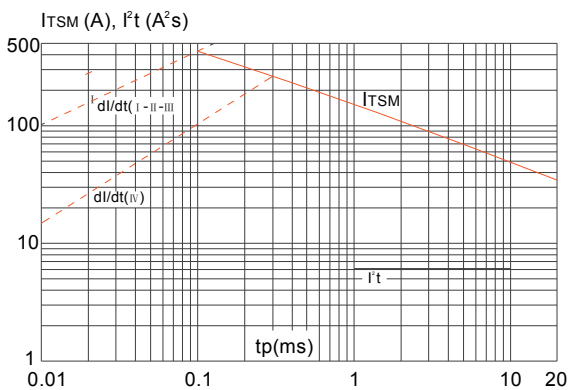
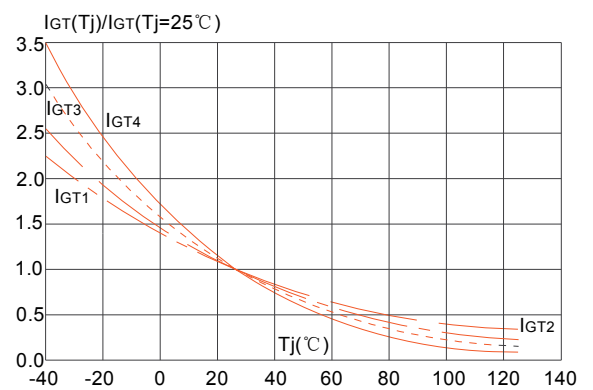
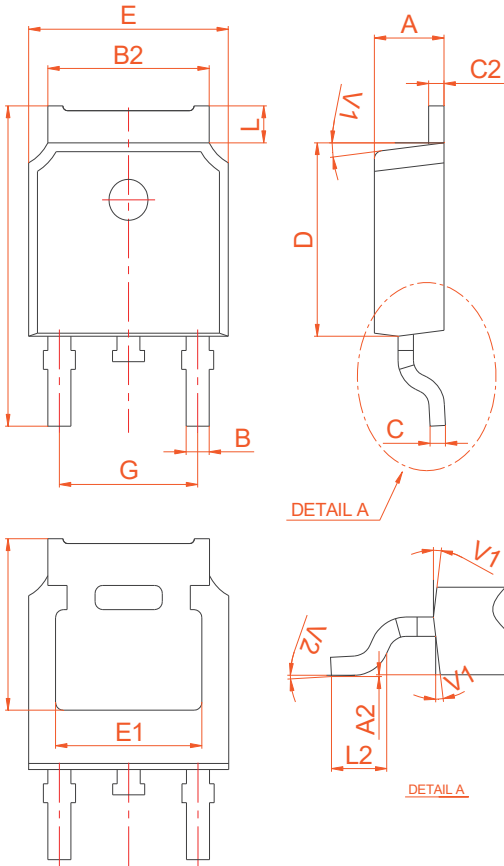


FIG6

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



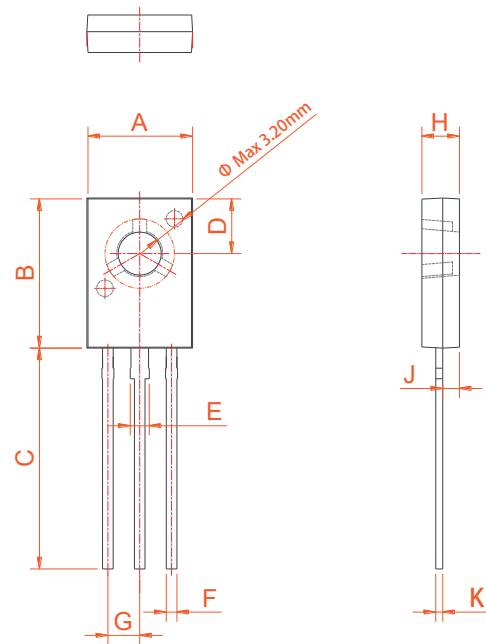
PACKAGE MECHANICAL DATA



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°

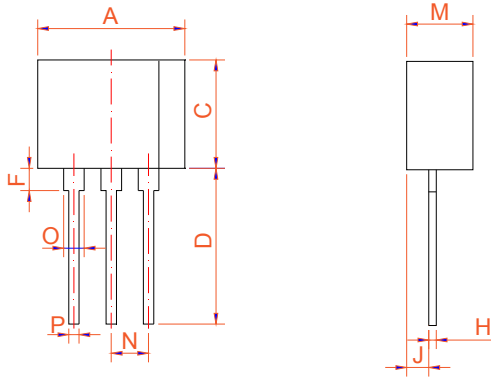
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Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	7.40		7.80	0.291		0.307
B	10.6		11.2	0.417		0.441
C	15.3		16.3	0.602		0.642
D	3.90		4.10	0.154		0.161
E	1.17		1.47	0.046		0.058
F	0.66		0.86	0.026		0.034
G		2.29			0.090	
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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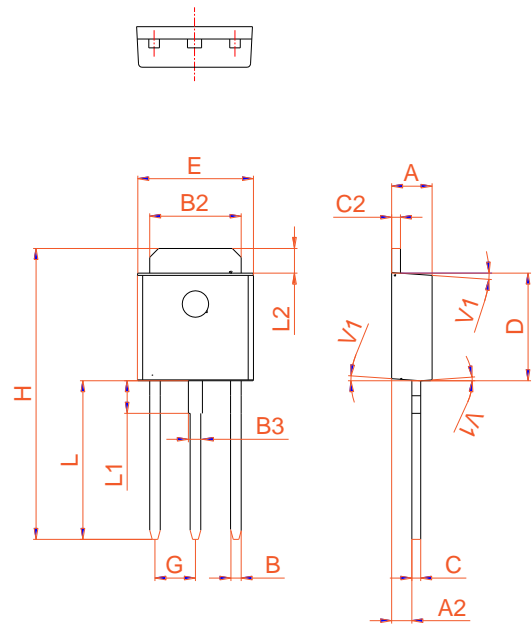
PACKAGE MECHANICAL DATA



TO-202-3

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.30		9.90	0.366		0.390
C	7.0		7.6	0.276		0.299
D	10.5		11.5	0.413		0.453
F	1.50		2.50	0.059		0.098
H	0.45		0.55	0.018		0.022
J	1.50		1.90	0.059		0.075
M	4.40		4.70	0.173		0.185
N		2.54			0.100	
O	1.20		1.50	0.047		0.059
P	0.60		0.80	0.024		0.031

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°	



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