THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
Rth(j-a)	Junction to ambient	100	°C/W
Rth(j-c)	Junction to case for D.C	10	°C/W
Rth(j-c)	Junction to case for A.C 360°conduction angle (F=50Hz)	7.5	°C/W

GATE CHARACTERISTICS

$P_{G\,(AV)}$= 0.2 W max. P_{GM} = 3 W max. (tp = 20 µs) I_{GM} = 1.2 A max. (tp = 20 µs)
V_{GD} = 0.2Vmin. (V_D=V_{DRM} R_L=3.3kΩ Tj= 125°C)

ELECTRICAL CHARACTERISTICS

Symbol	Test Conditions		Quadrant		Sensitivity				Unit
					02	05	09	10	
I_{GT}	V_D=12V (DC) R_L=33Ω	Tj= 25°C	I-II-III-IV	MAX	3	5	10	25	mA
V_{GT}	V_D=12V (DC) R_L=33Ω	Tj= 25°C	I-II-III-IV	MAX	1.5				V
I_H *	I_T= 50 mA Gate open	Tj= 25°C		MAX	3	5	10	25	mA
I_L	I_G= 1.2 I_{GT}	Tj= 25°C	I-III-IV	MAX	6	10	15	25	mA
			II	MAX	12	15	25	50	
V_{TM} *	I_{TM}= 5.5A tp= 380µs	Tj= 25°C		MAX	2				V
I_{DRM} I_{RRM}	V_D = V_{DRM} V_R = V_{RRM}	Tj= 25°C		MAX	5				µA
		Tj= 110°C		MAX	200				
dV/dt *	V_D=67%V_{DRM} Gate open	Tj= 110°C		MIN	10	20	100	200	V/µs
(dV/dt)c *	(dI/dt)c = 1.3 A/ms	Tj= 110°C		MIN	0.5	1	2		V/µs
	(dI/dt)c = 1.8 A/ms	Tj= 110°C		MIN				5	V/µs

* For either polarity of electrode A_2 voltage with reference to electrode A_1

ORDERING INFORMATION

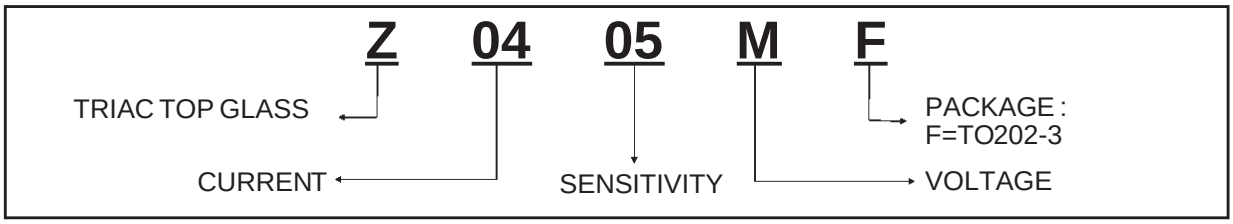


Fig.1 : Maximum RMS power dissipation versus RMS on-state current.

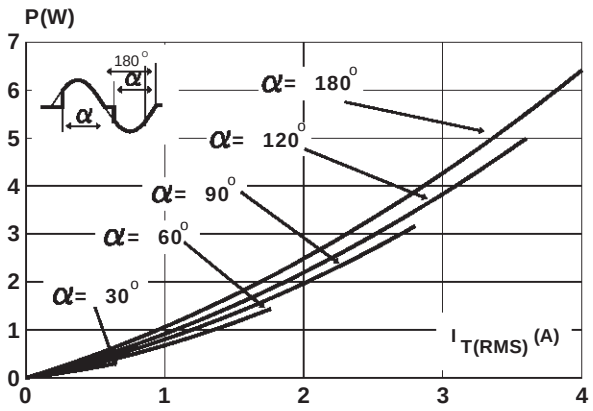


Fig.2 : Correlation between maximum RMS power dissipation and maximum allowable temperature (Tamb and Tcase).

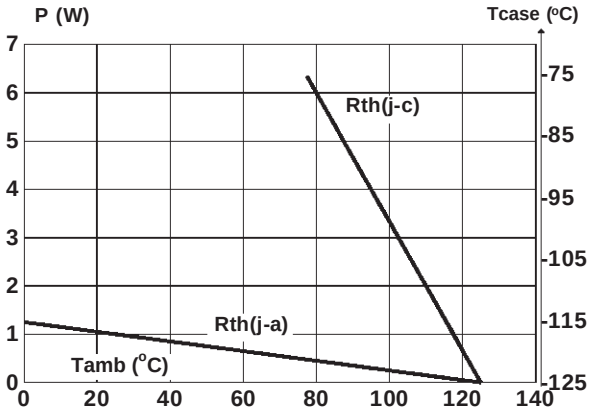


Fig.3 : RMS on-state current versus case temperature.

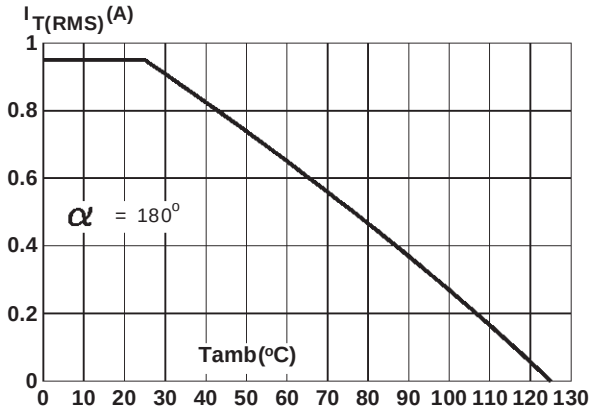


Fig.4 : Relative variation of thermal impedance junction to ambient versus pulse duration.

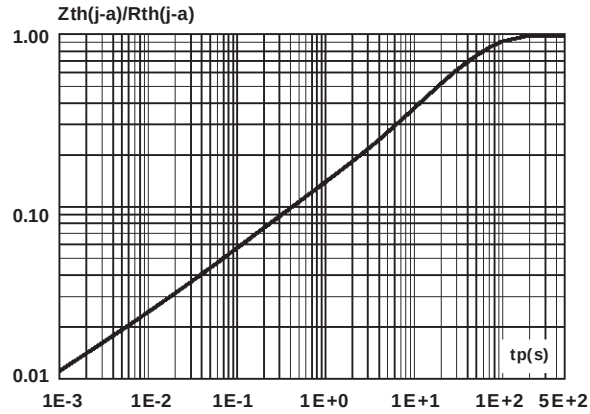


Fig.5 : Relative variation of gate trigger current and holding current versus junction temperature.

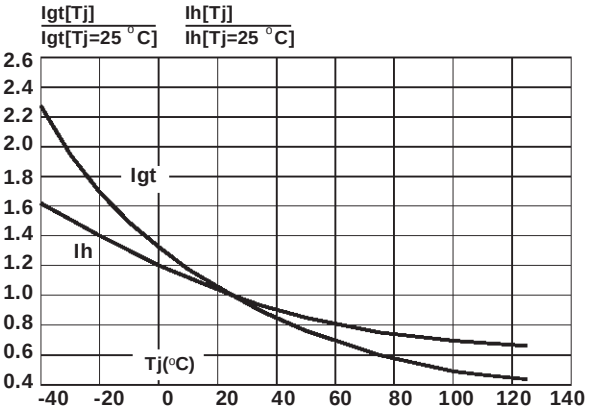


Fig.6 : Non repetitive surge peak on-state current versus number of cycles.

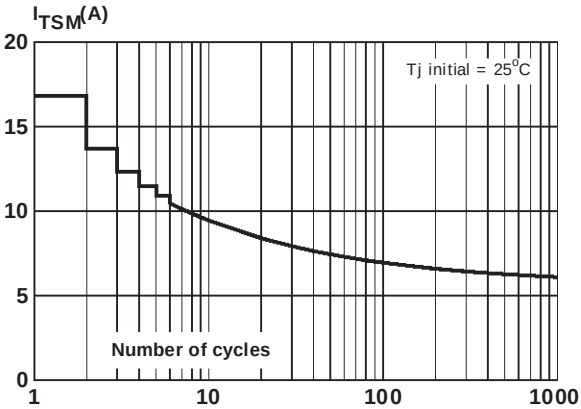


Fig.7 : Non repetitive surge peak on-state current for a sinusoidal pulse with width : tp ≤ 10ms, and corresponding value of I^2t.

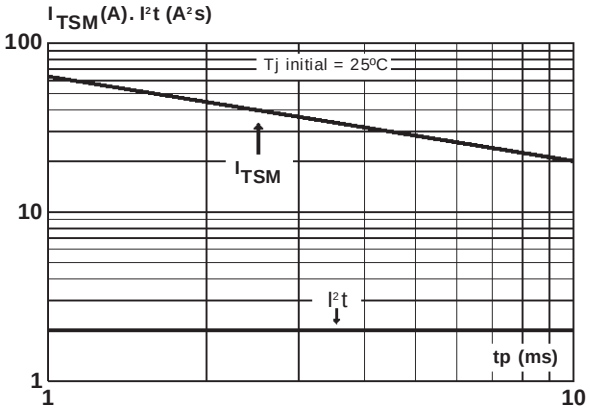
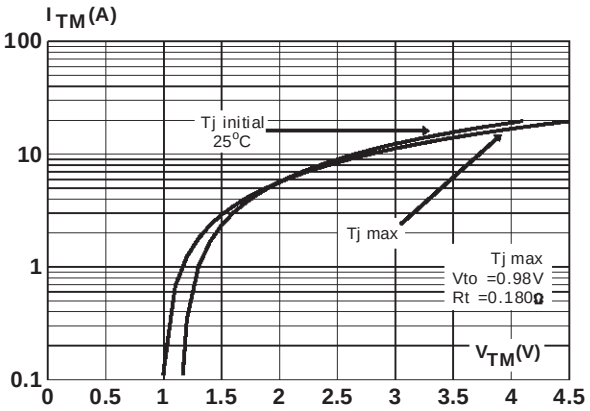
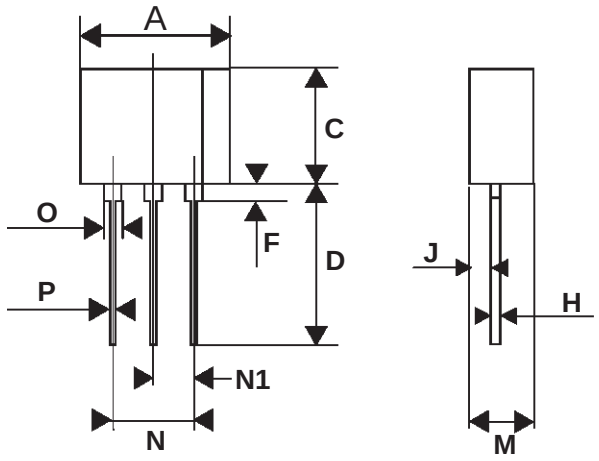


Fig.8 : On-state characteristics (maximum values).



PACKAGE MECHANICAL DATA

TO202-3 (Plastic)



REF.	DIMENSIONS			
	Millimeters		Inches	
	Typ.	Max.	Typ.	Max.
A		10.1		0.398
C	7.3		0.287	
D	10.5		0.413	
E	7.4		0.290	
F		1.5		0.059
H	0.51		0.020	
J	1.5		0.059	
M	4.5		0.177	
N		5.3		0.209
N1	2.54		0.100	
O		1.4		0.055
P		0.7		0.028

Marking : type number
Weight : 1 g