THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
Rth(j-a)	Junction to ambient	100	°C/W
Rth(j-c)	Junction to case for DC	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} = 0.1Vmin. (V_D=V_{DRM} R_L=3.3kΩ R_{GK} = 1 KΩ Tj= 125°C)

ELECTRICAL CHARACTERISTICS

Symbol	Test Conditions			Sensitivity			Unit
				02	03	05	
I_{GT}	V_D=12V (DC) R_L=140Ω	Tj= 25°C	MIN		20	20	µA
			MAX	200	200	50	
V_{GT}	V_D=12V (DC) R_L=140Ω	Tj= 25°C	MAX	0.8			V
V_{RGM}	I_{RG} =10µA	Tj= 25°C	MIN	8			V
I_H	I_T= 50mA R_{GK} = 1 KΩ	Tj= 25°C	MAX	5			mA
I_L	I_G=1mA R_{GK} = 1 KΩ	Tj= 25°C	MAX	6			mA
V_{TM}	I_{TM}= 8A tp= 380µs	Tj= 25°C	MAX	1.8			V
I_{DRM} I_{RRM}	V_D = V_{DRM} R_{GK} = 1 KΩ V_R = V_{RRM}	Tj= 25°C	MAX	5			µA
		Tj= 110°C	MAX	200			
dV/dt	V_D=67%V_{DRM} R_{GK} = 1 KΩ	Tj= 110°C	MIN	10	15	15	V/µs

ORDERING INFORMATION

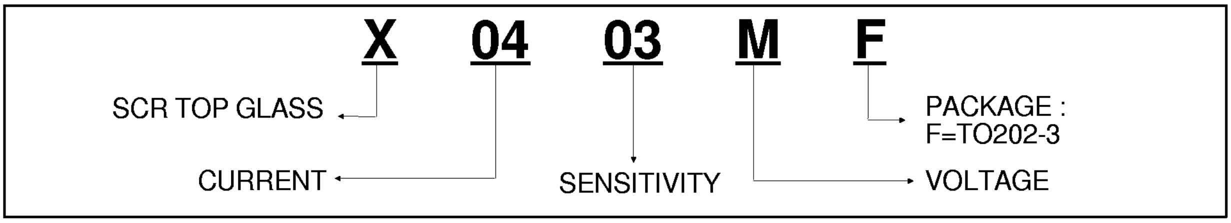


Fig.1 : Maximum average power dissipation versus average on-state current.

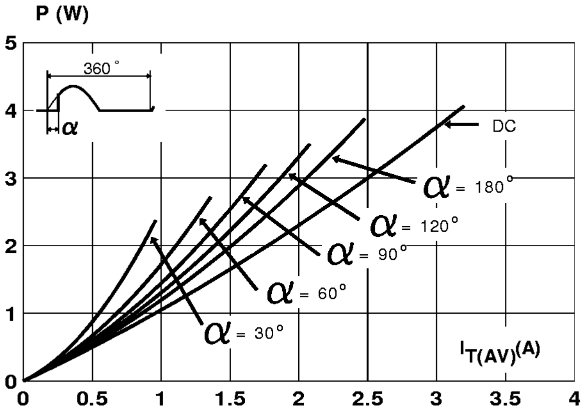


Fig.2 : Correlation between maximum average power dissipation and maximum allowable temperature (Tamb and Tcase).

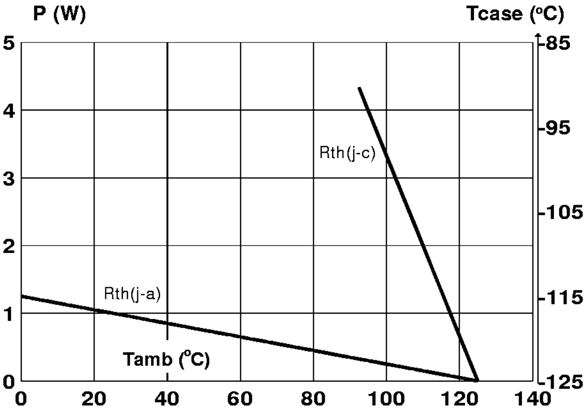


Fig.3 : Average on-state current versus case temperature.

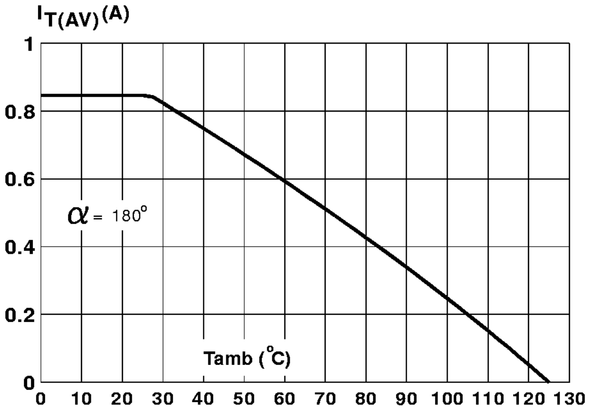


Fig.4 : Relative variation of thermal impedance junction to ambient versus pulse duration.

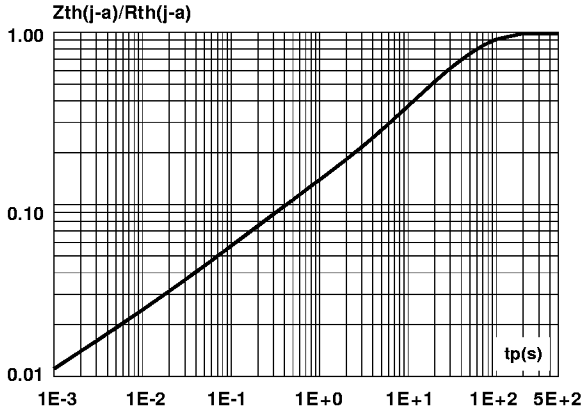


Fig.5 : Relative variation of gate trigger current and holding current versus junction temperature.

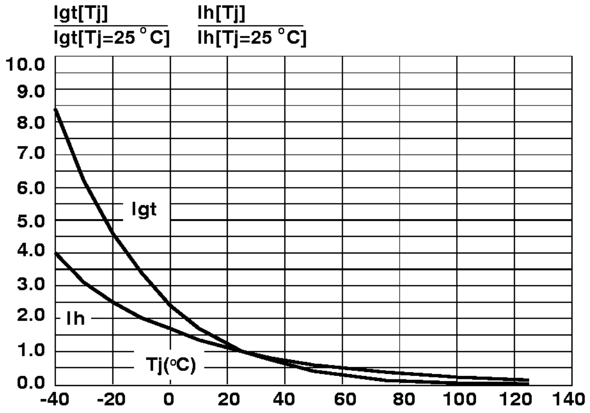


Fig.6 : Non repetitive surge peak on-state current versus number of cycles.

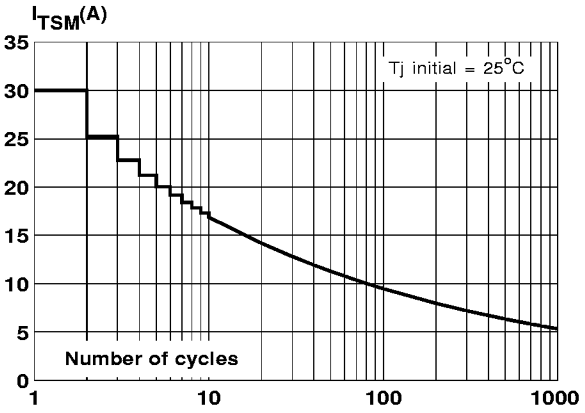


Fig.7 : Non repetitive surge peak on-state current for a sinusoidal pulse with width : tp ≤ 10ms, and corresponding value of I^2t.

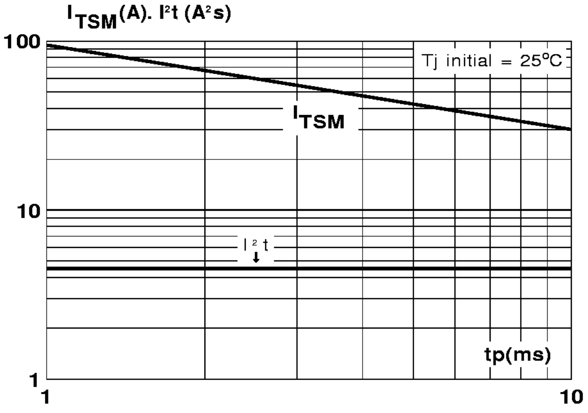
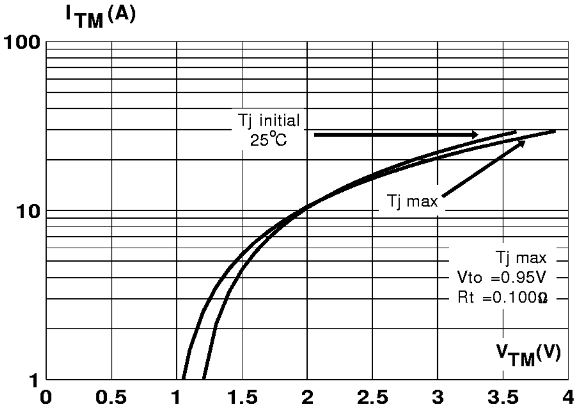
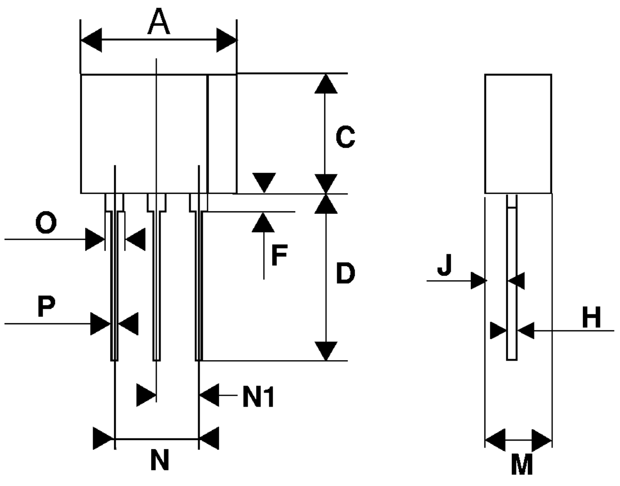


Fig.8 : On-state characteristics (maximum values).



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

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