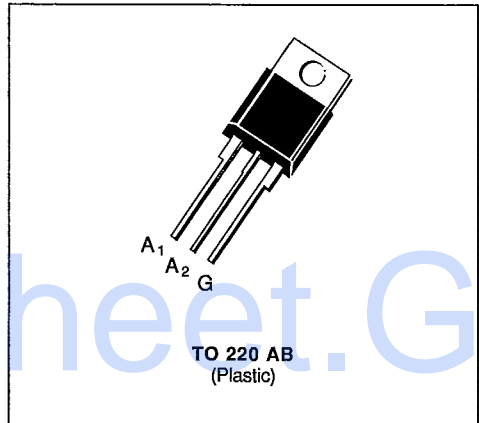


TRIACS

- GLASS PASSIVATED CHIP
- I_{GT} SPECIFIED IN FOUR QUADRANTS

**DESCRIPTION**

New range suited for applications such as phase control and static switching.

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
$I_{T(RMS)}$	RMS on-state Current (360° conduction angle)	$T_C = 90\text{ }^\circ\text{C}$	15	A
I_{TSM}	Non Repetitive Surge Peak on-state Current (T_J initial = 25 °C - Half sine wave)	$t = 8.3\text{ ms}$	157	A
		$t = 10\text{ ms}$	150	
I^2t	I^2t Value for Fusing	$t = 10\text{ ms}$	112.5	A^2s
di/dt	Critical Rate of Rise of on-state Current (1)	Repetitive $F = 50\text{ Hz}$	10	$A/\mu s$
		Non Repetitive	50	
T_{stg} T_J	Storage and Operating Junction Temperature Range		- 40 to 150	$^\circ\text{C}$
			- 40 to 125	$^\circ\text{C}$

Symbol	Parameter	BTB 15-					Unit
		200B	400B	600B	700B	800B	
V_{DRM}	Repetitive Peak off-state Voltage (2)	200	400	600	700	800	V

(1) $I_a = 750\text{ mA}$ $di_c/dt = 1\text{ A}/\mu s$

(2) $T_J = 125\text{ }^\circ\text{C}$.

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th (j-a)}$	Junction to Ambient	60	$^\circ\text{C}/\text{W}$
$R_{th (j-c)}\text{ DC}$	Junction to Case for DC	2.66	$^\circ\text{C}/\text{W}$
$R_{th (j-c)}\text{ AC}$	Junction to Case for 360° Conduction Angle ($F = 50\text{ Hz}$)	2	$^\circ\text{C}/\text{W}$

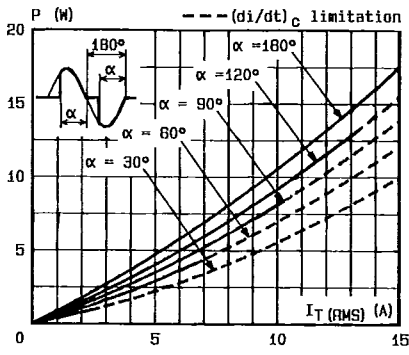


Fig.1 - Maximum mean power dissipation versus RMS on-state current ($F = 60$ Hz).

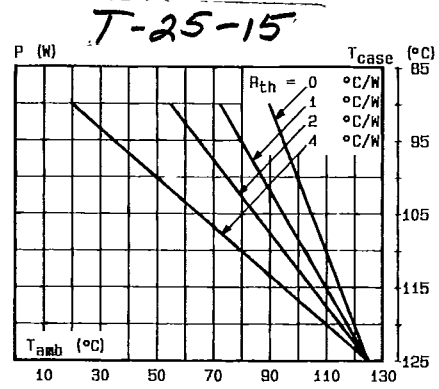


Fig.2 - Correlation between maximum mean power dissipation and maximum allowable temperatures (T_{amb} and T_{case}) for different thermal resistances heatsink + contact.

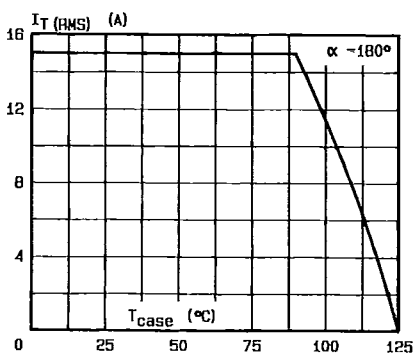


Fig.3 - RMS on-state current versus case temperature.

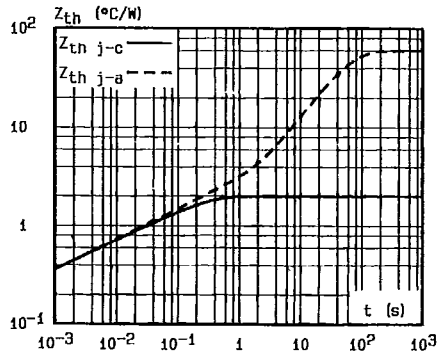


Fig.4 - Thermal transient impedance junction to case and junction to ambient versus pulse duration.

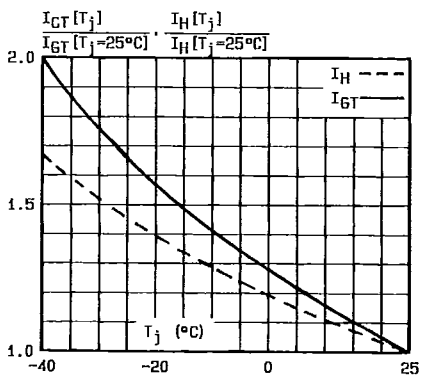


Fig.5 - Relative variation of gate trigger current and holding current versus junction temperature.

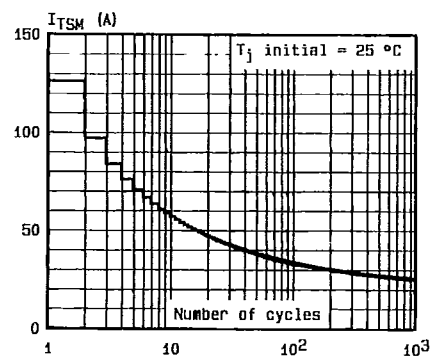


Fig.6 - Non repetitive surge peak on-state current versus number of cycles.

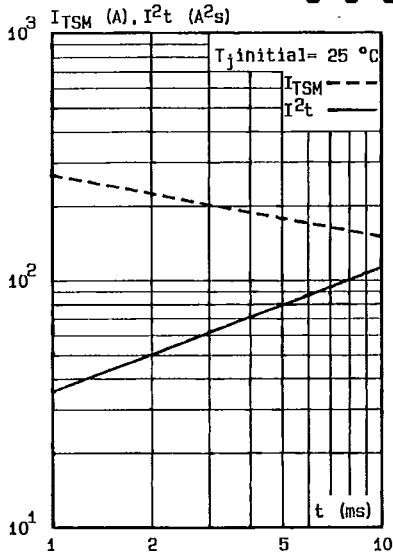


Fig.7 - Non repetitive surge peak on-state current for a sinusoidal pulse with width: $t \leq 10\text{ms}$, and corresponding value of I^2t .

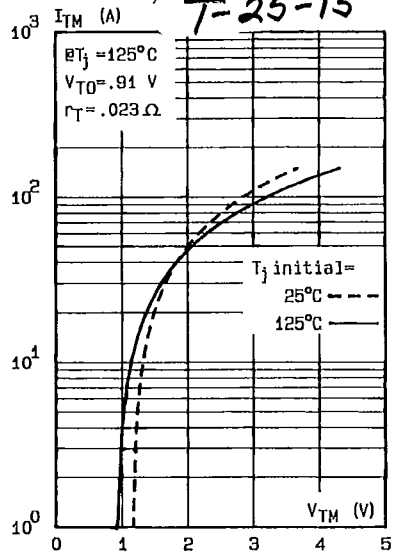


Fig.8 - On-state characteristic (maximum values).