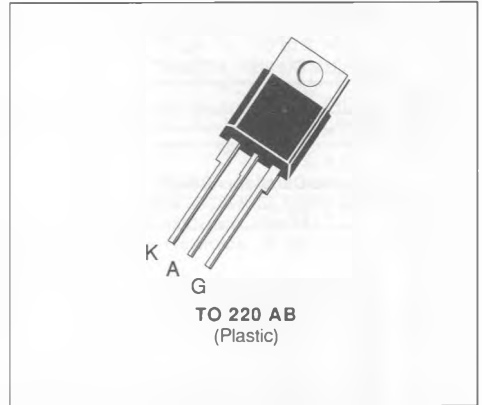


THYRISTORS

- GLASS PASSIVATED CHIP
- POSSIBILITY OF MOUNTING ON PRINTED CIRCUIT


DESCRIPTION

SCR's designed for motor control, heating controls, power supplies...

ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		TYN		Unit
			225 to 825	1025 - 1225	
$I_{T(RMS)}$	RMS on-state Current (1)	$T_c = 90\text{ }^\circ\text{C}$	25		A
$I_{T(AV)}$	Mean on-state Current (1)	$T_c = 90\text{ }^\circ\text{C}$	16		A
I_{TSM}	Non Repetitive Surge Peak on-state Current (T_j initial = $25\text{ }^\circ\text{C}$) (2)	$t = 8.3\text{ ms}$	315	260	A
		$t = 10\text{ ms}$	300	250	
I^2t	I^2t Value for Fusing	$t = 10\text{ ms}$	450	310	A^2s
di/dt	Critical Rate of Rise of on-state Current (3)		100		$\text{A}/\mu\text{s}$
T_{stg} T_j	Storage and Operating Junction Temperature Range		- 40 to 125		$^\circ\text{C}$
			- 40 to 125		$^\circ\text{C}$

Symbol	Parameter	TYN						Unit
		225	425	625	825	1025	1225	
V_{DRM} V_{RRM}	Repetitive Peak off-state Voltage (4)	200	400	600	800	1000	1200	V

(1) Single phase circuit, 180° conduction angle.

(2) Half sine wave.

(3) $I_G = 400\text{ mA}$ $di_G/dt = 1\text{ A}/\mu\text{s}$.

(4) $T_j = 125\text{ }^\circ\text{C}$.

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	Junction-case for D.C.	1.5	$^\circ\text{C}/\text{W}$
$R_{th(j-a)}$	Junction-ambient	60	$^\circ\text{C}/\text{W}$

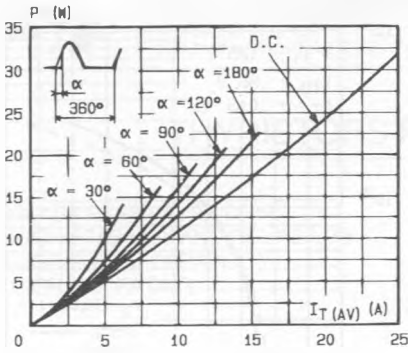


Fig. 1 - Maximum mean power dissipation versus mean on-state current.

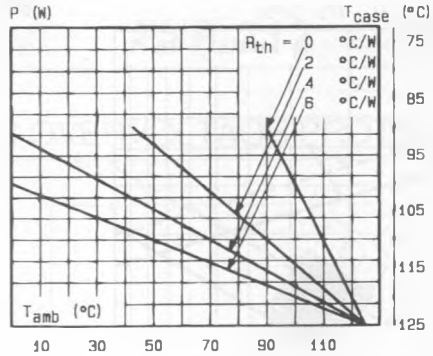


Fig. 2 - Correlation between maximum mean power dissipation and maximum allowable temperatures (T_{amb} and T_{case}) for different thermal resistances heatsink + contact.

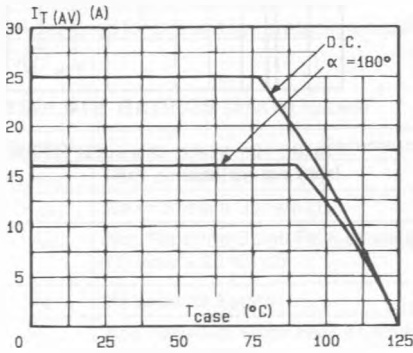


Fig. 3 - Mean on-state current versus case temperature.

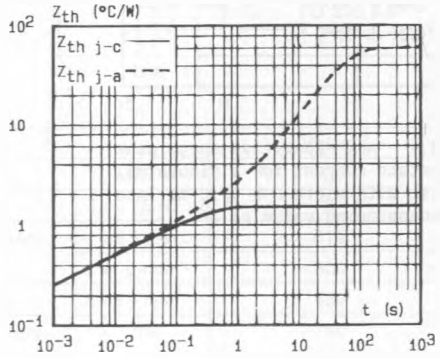


Fig. 4 - Thermal transient impedance junction to case and junction to ambient versus pulse duration.

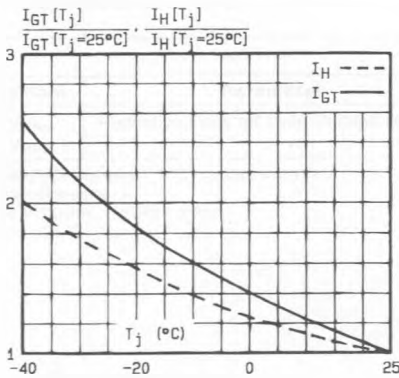


Fig. 5 - Relative variation of gate trigger current and holding current versus junction temperature.

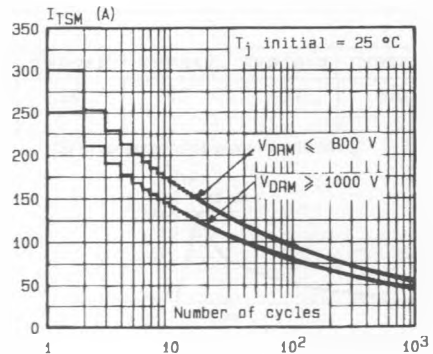


Fig. 6 - Non repetitive surge peak on-state current versus number of cycles.

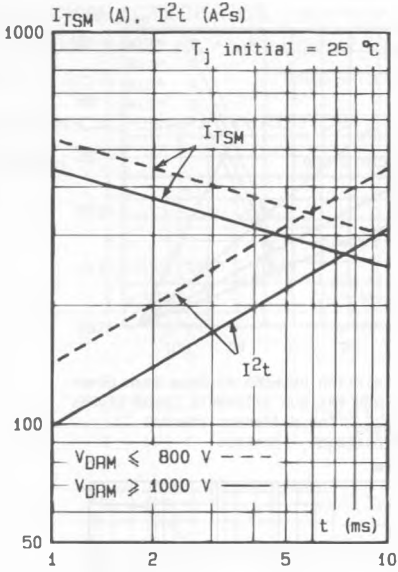


Fig.7 - Non repetitive surge peak on-state current for a sinusoidal pulse with width : $t \leq 10 \text{ ms}$, and corresponding value of I^2t .

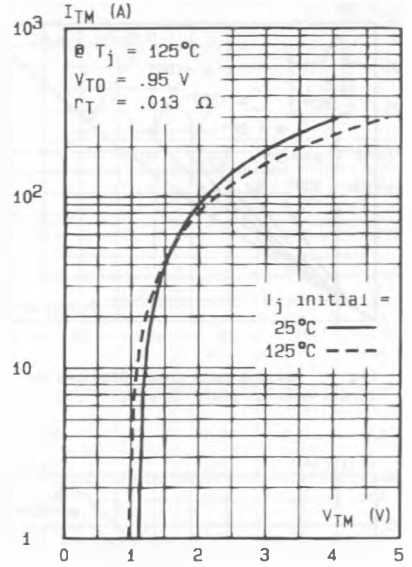


Fig.8 - On-state characteristics (maximum values).