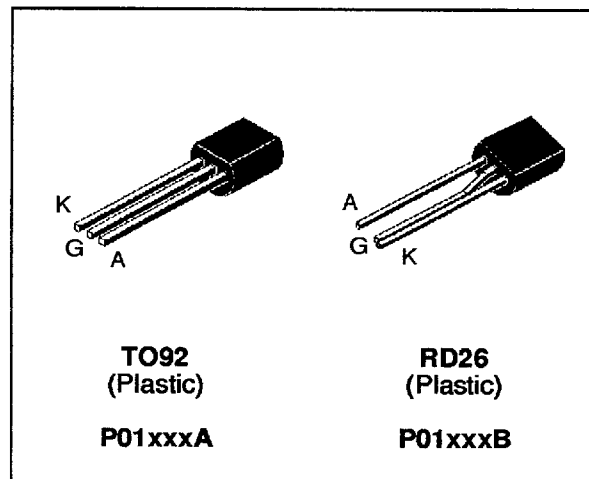


**SENSITIVE GATE SCR**
**FEATURES**

- $I_{T(RMS)} = 0.8A$
- $V_{DRM} = 100V$  to  $400V$
- Low  $I_{GT} < 1\mu A$  max to  $< 200\mu A$

**DESCRIPTION**

The P01xxxA/B series of SCRs uses a high performance planar PNPN technology. These parts are intended for general purpose applications where low gate sensitivity is required.

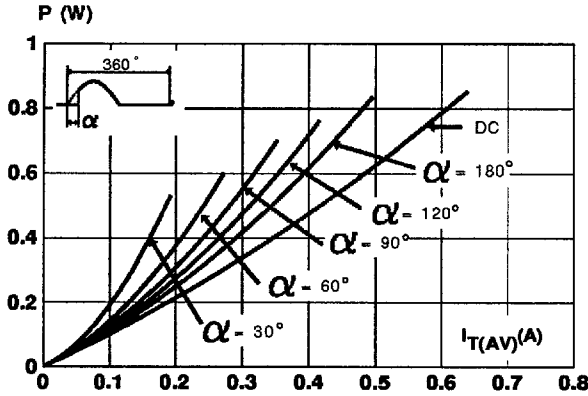

**ABSOLUTE RATINGS (limiting values)**

Symbol	Parameter		Value	Unit
$I_{T(RMS)}$	RMS on-state current (180° conduction angle)	$T_I = 55^\circ C$	0.8	A
$I_{T(AV)}$	Mean on-state current (180° conduction angle)	$T_I = 55^\circ C$	0.5	A
$I_{TSM}$	Non repetitive surge peak on-state current ( $T_j$ initial = $25^\circ C$ )	$t_p = 8.3$ ms	8	A
		$t_p = 10$ ms	7	
$I^2t$	$I^2t$ Value for fusing	$t_p = 10$ ms	0.24	$A^2s$
$di/dt$	Critical rate of rise of on-state current $I_G = 10$ mA $di_G/dt = 0.1$ A/ $\mu s$ .		30	A/ $\mu s$
$T_{stg}$ $T_j$	Storage and operating junction temperature range		- 40, + 150 - 40, + 125	$^\circ C$
$T_I$	Maximum lead temperature for soldering during 10s at 2mm from case		260	$^\circ C$

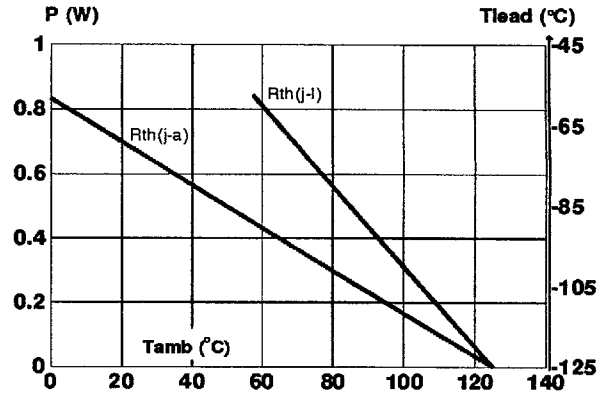
Symbol	Parameter	Voltage				Unit
		A	B	C	D	
$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage $T_j = 125^\circ C$ $R_{GK} = 1K\Omega$	100	200	300	400	V



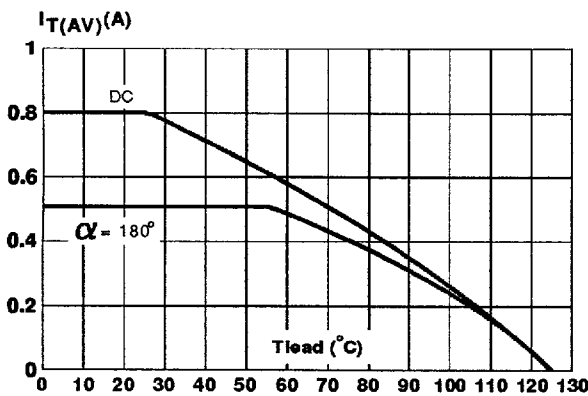
**Fig.1 :** Maximum average power dissipation versus average on-state current.



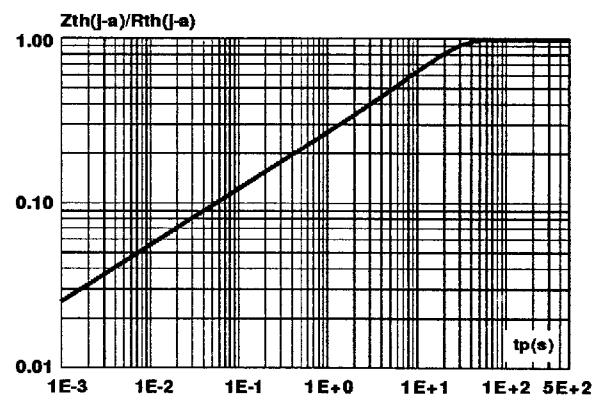
**Fig.2 :** Correlation between maximum average power dissipation and maximum allowable temperature ( $T_{amb}$  and  $T_{lead}$ ).



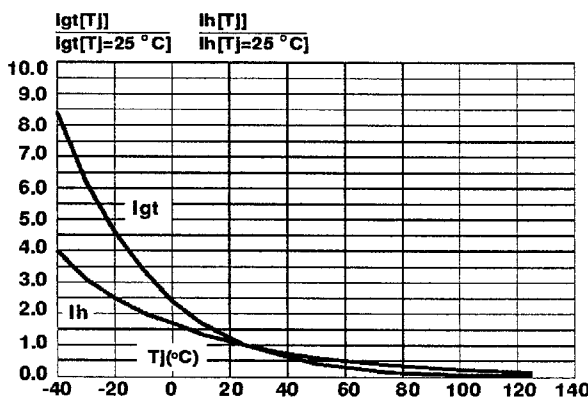
**Fig.3 :** Average on-state current versus lead temperature.



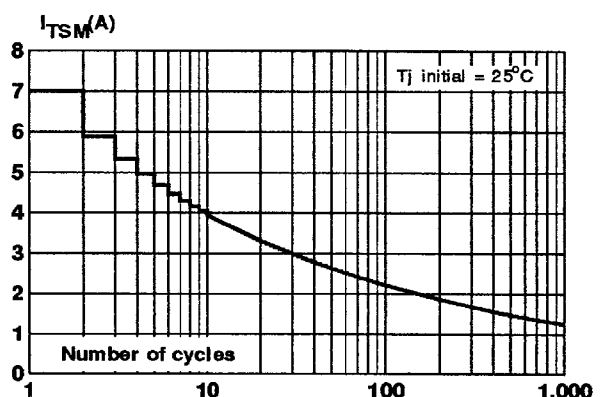
**Fig.4 :** Relative variation of thermal impedance junction to ambient versus pulse duration.



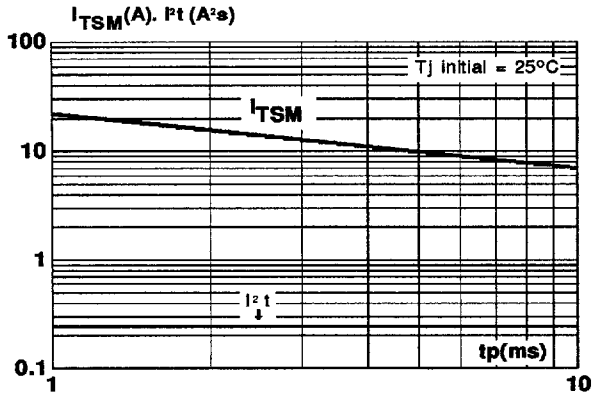
**Fig.5 :** Relative variation of gate trigger current and holding current versus junction temperature.



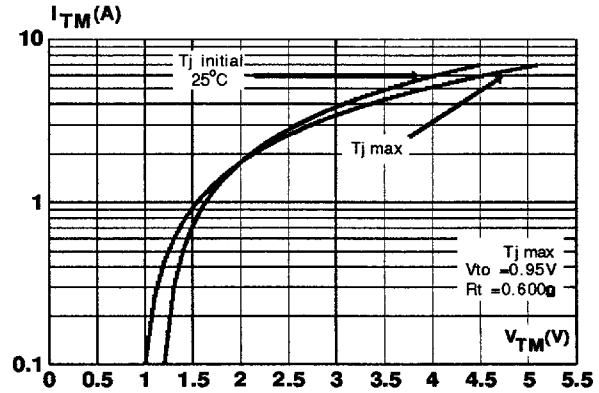
**Fig.6 :** Non repetitive surge peak on-state current versus number of cycles.



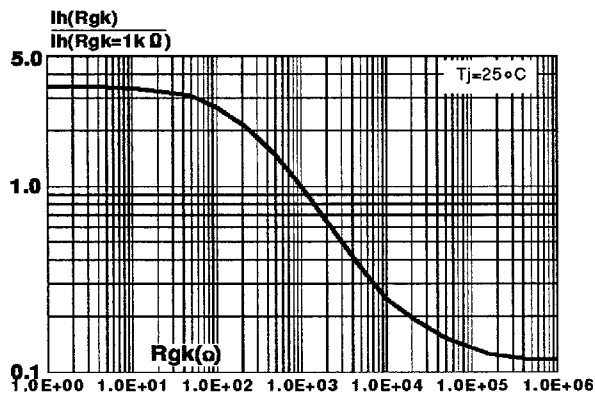
**Fig.7 :** Non repetitive surge peak on-state current for a sinusoidal pulse with width :  $t_p \leq 10\text{ms}$ , and corresponding value of  $I^2t$ .



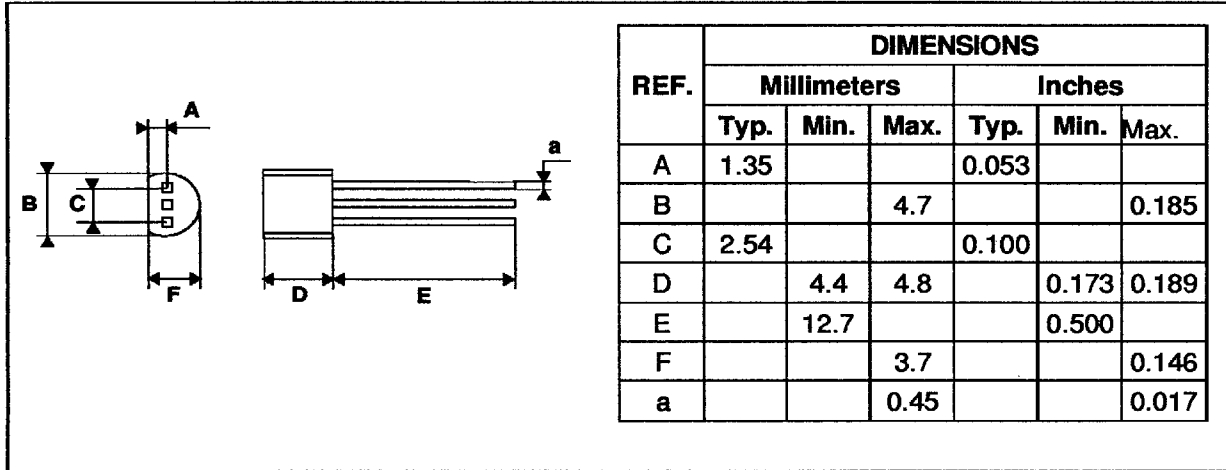
**Fig.8 :** On-state characteristics (maximum values).



**Fig.9 :** Relative variation of holding current versus gate-cathode resistance (typical values).

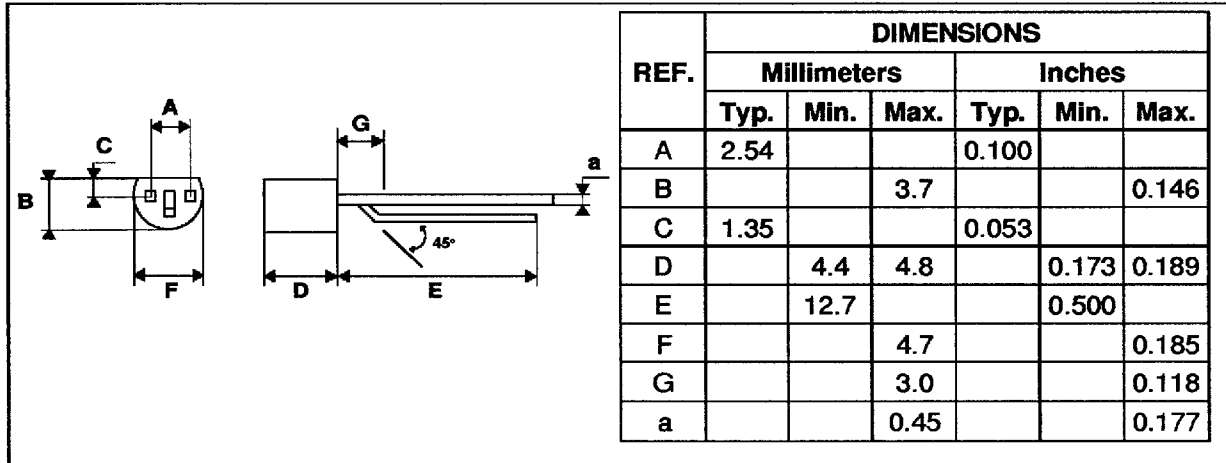


**PACKAGE MECHANICAL DATA**  
TO92 (Plastic)



Marking : type number  
Weight : 0.2 g

**PACKAGE MECHANICAL DATA**  
RD26 (Plastic)



Marking : type number  
Weight : 0.2 g

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