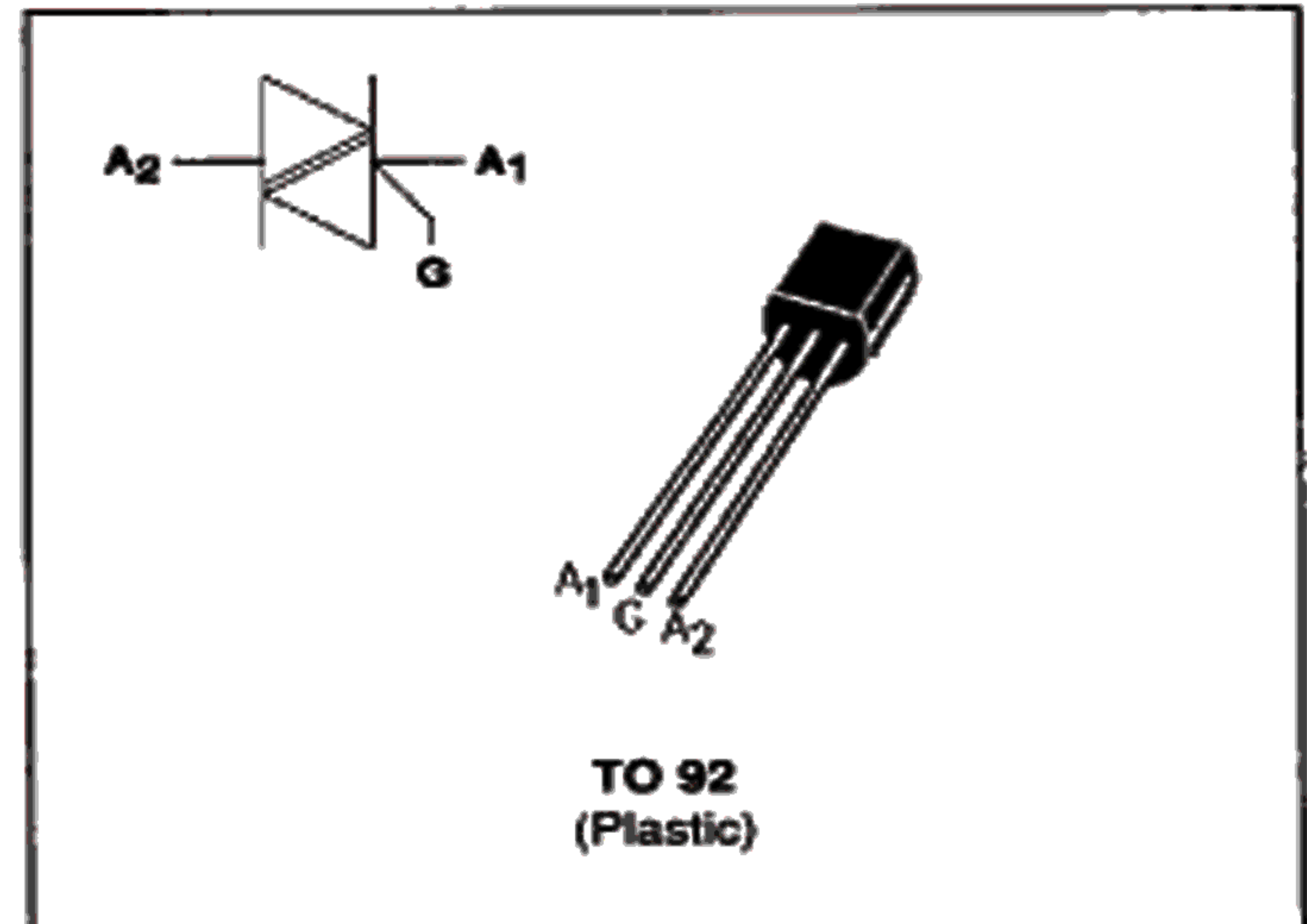


SENSITIVE GATE TRIACS
FEATURES

- $I_{T(RMS)} = 0.8 \text{ A}$
- $V_{DRM} = 200 \text{ V to } 600 \text{ V}$
- $I_{GT} \leq 10 \text{ mA}$


ABSOLUTE RATINGS (limiting values)

Symbol	Parameter		Value	Unit
$I_{T(RMS)}$	RMS on-state current (360° conduction angle)	$T_I = 55^\circ\text{C}$	0.8	A
	RMS on-state current on printed circuit (360° Conduction angle)	$T_a = 30^\circ\text{C}$	0.5	
I_{TSM}	Non repetitive surge peak on-state current (T_J initial = 25°C)	$t_p = 8.3 \text{ ms}$	8.5	A
		$t_p = 10 \text{ ms}$	8	
i^2t	i^2t value	$t_p = 10 \text{ ms}$	0.32	A^2s
di/dt	Critical rate of rise of on-state current $I_G = 100 \text{ mA}$ $di_G/dt = 1 \text{ A}/\mu\text{s}$	Repetitive	10	$\text{A}/\mu\text{s}$
T_{stg} T_J	Storage and operating junction temperature range		- 40, + 150	$^\circ\text{C}$
			- 40, + 125	$^\circ\text{C}$
T_I	Maximum lead temperature for soldering during 10 s		260	$^\circ\text{C}$

Symbol	Parameter	T08-			Unit
		2A	4A	6A	
V_{DRM} V_{RRM}	Repetitive peak off-state voltage $T_J = 125 \text{ }^\circ\text{C}$	200	400	600	V

T08 A**THERMAL RESISTANCES**

Symbol	Parameter	Value	Unit
Rth (j - a)	Junction to ambient on printed circuit	150	°C/W
Rth (j - l)	Junction to leads for 360° conduction angle (F = 50 Hz)	60	°C/W

GATE CHARACTERISTICS (maximum values)

$P_{GM} = 2 \text{ W}$ ($t = 20 \mu\text{s}$) $P_G (AV) = 100 \text{ mW}$ $I_{GM} = 1 \text{ A}$ ($t = 20 \mu\text{s}$) $V_{GM} = 16 \text{ V}$ ($t = 20 \mu\text{s}$).

ELECTRICAL CHARACTERISTICS

Symbol	Test Conditions	Quadrant	Value	Unit		
I _{GT}	V _D =12V (DC) R _L =140Ω	T _J =25°C	I-II-III	MAX	10	mA
			IV		25	
V _{GT}	V _D =12V (DC) R _L =140Ω	T _J =25°C	I-II-III-IV	MAX	1.5	V
V _{GD}	V _D =V _{DRM} R _L =3.3kΩ	T _J =125°C	I-II-III-IV	MIN	0.2	V
t _{gt}	V _D =V _{DRM} I _G = 40mA dI _G /dt = 0.5A/μs	T _J =25°C	I-II-III-IV	TYP	2	μs
I _L	I _G =1.2 I _{GT}	T _J =25°C	I-II-III-IV	MAX	25	mA
I _H *	I _T = 50mA gate open	T _J =25°C		MAX	25	mA
V _{TM} *	I _{TM} = 1.2A t _p = 380μs	T _J =25°C		MAX	1.9	V
I _{DRM} I _{RRM}	V _{DRM} Rated V _{RRM} Rated	T _J =25°C		MAX	0.01	mA
		T _J =125°C		MAX	0.75	
dV/dt *	Linear slope up to V _D =67%V _{DRM} gate open	T _J =125°C		MIN	70	V/μs
(dI/dt) _c *	(dV/dt) _c = 2V/μs	T _J =125°C		MIN	0.75	A/ms

* For either polarity of electrode A2 voltage with reference to electrode A1.

Fig.1 : Maximum RMS power dissipation versus RMS on-state current (F=50Hz).
(Curves are cut off by (di/dt)c limitation)

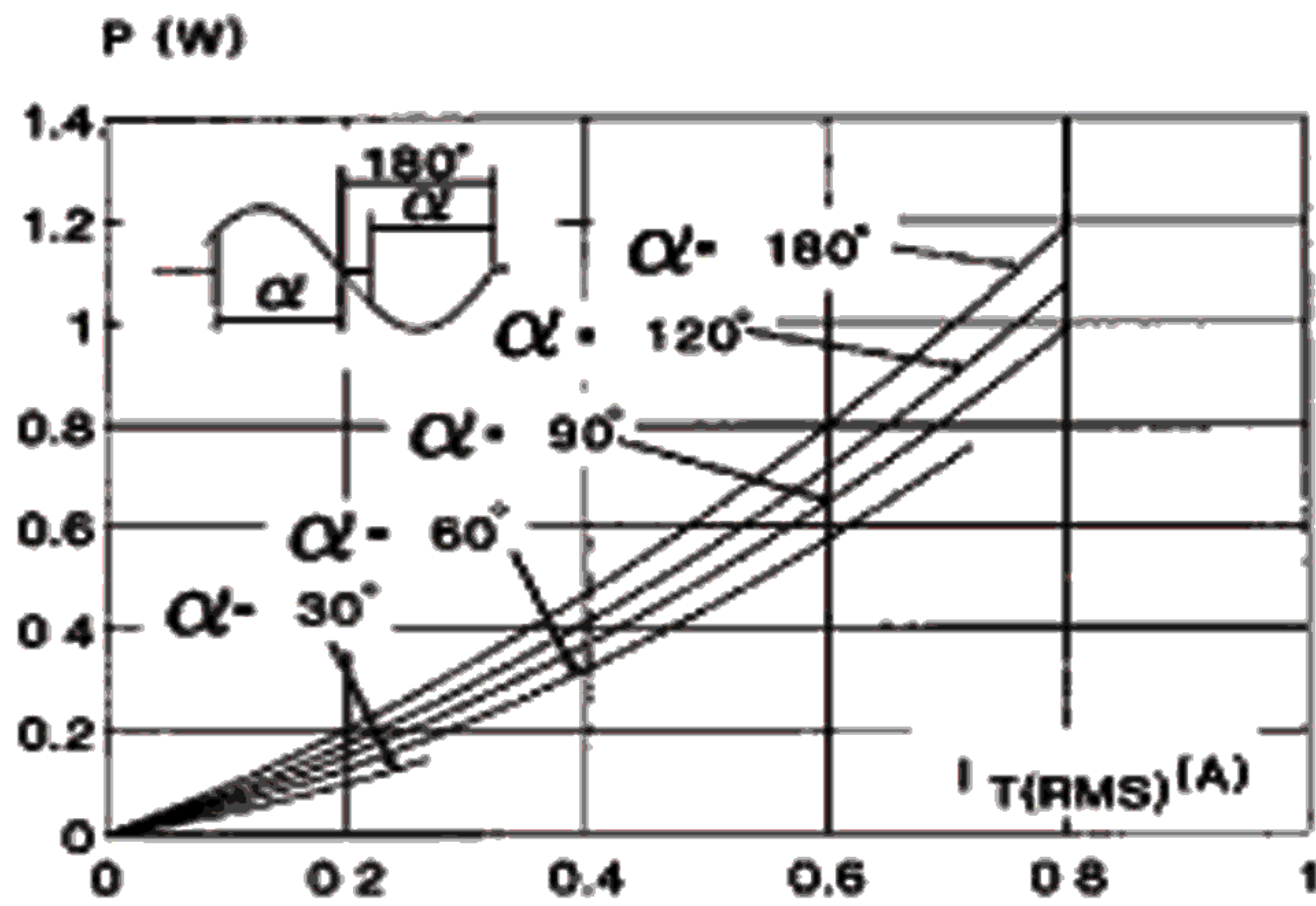


Fig.2 : Correlation between maximum RMS power dissipation and maximum allowable temperatures (Tamb and Tlead).

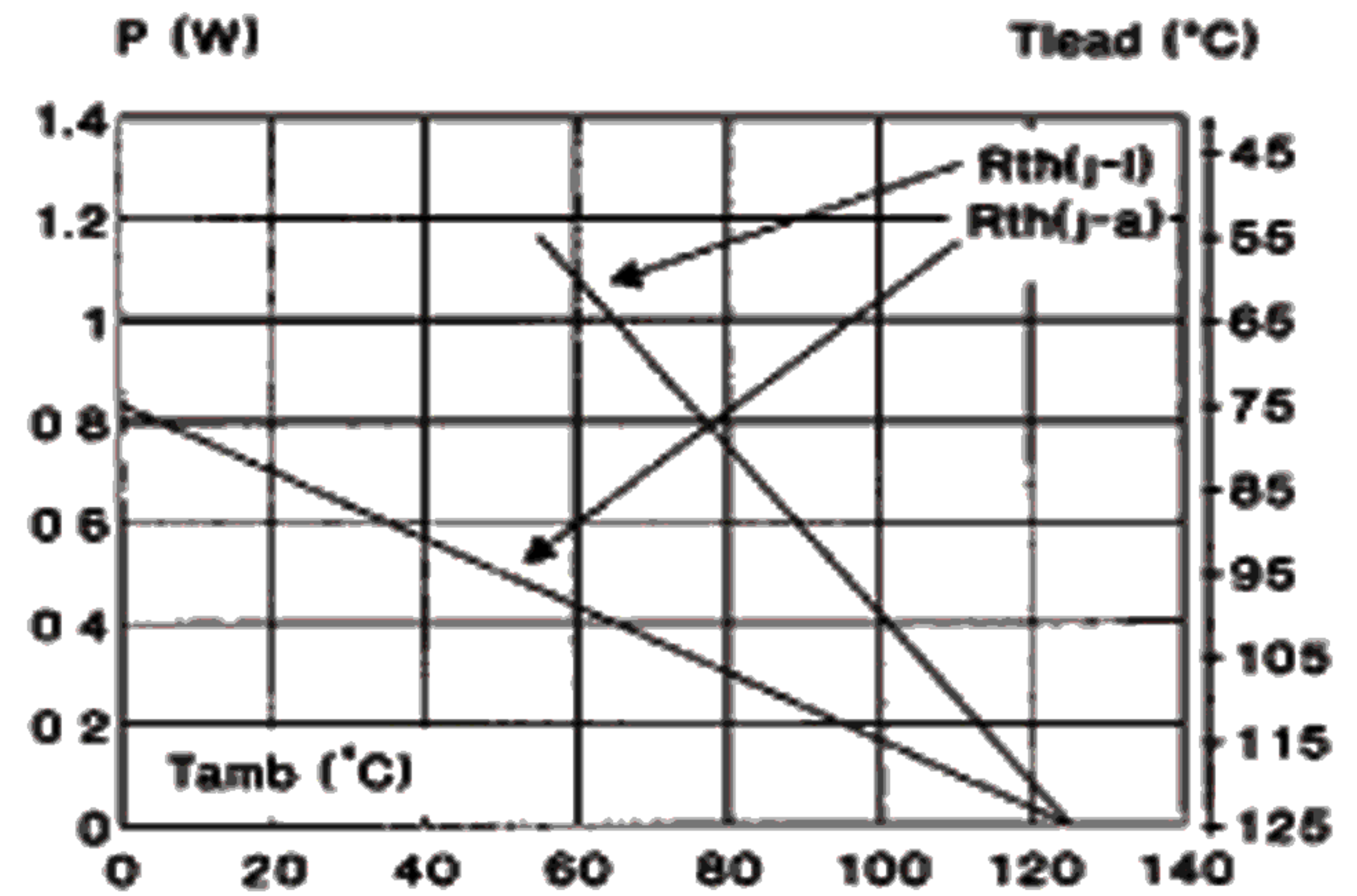


Fig.3 : RMS on-state current versus lead temperature.

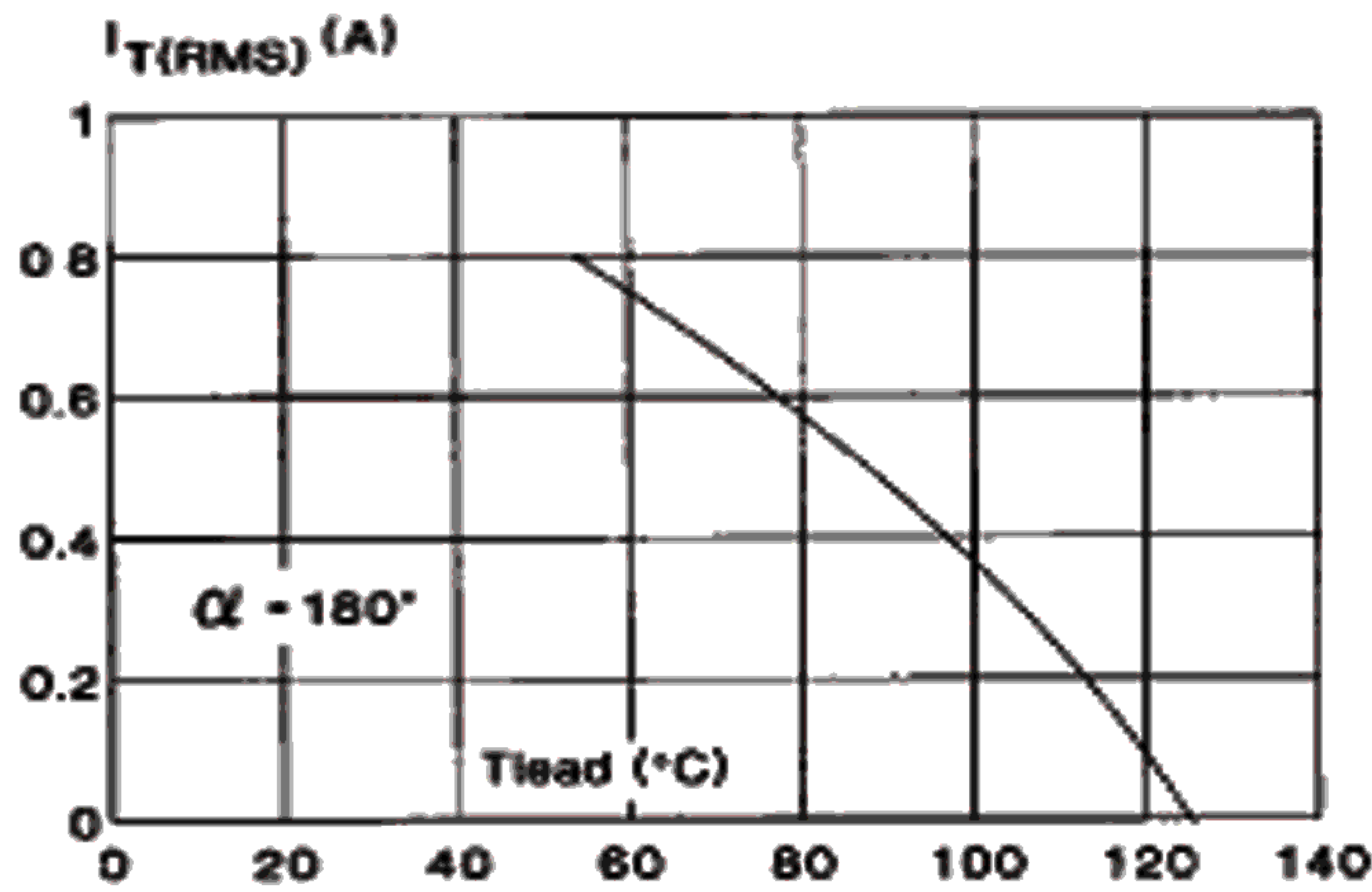


Fig.4 : Thermal transient impedance junction to ambient versus pulse duration.

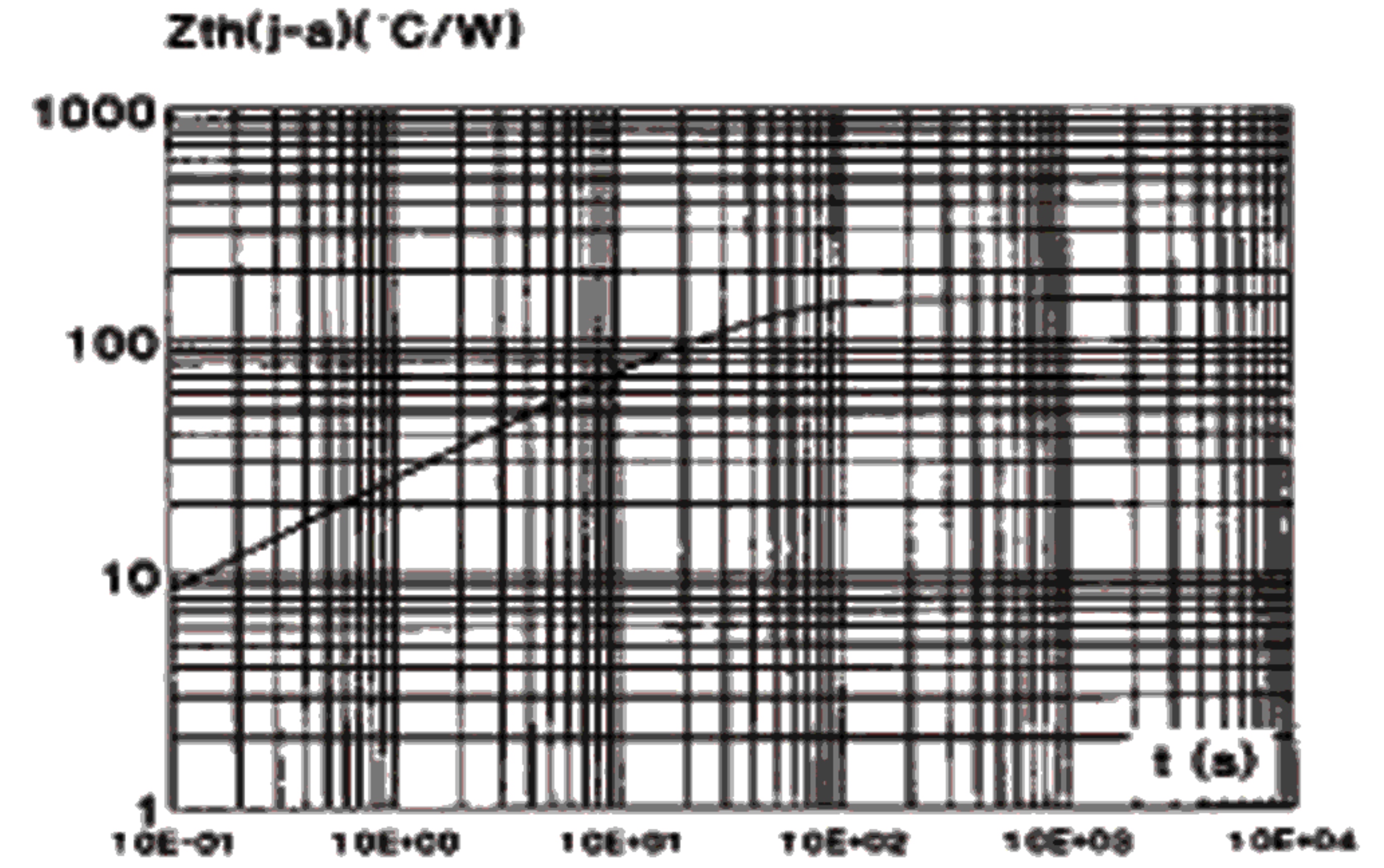


Fig.5 : Relative variation of gate trigger current and holding current versus junction temperature.

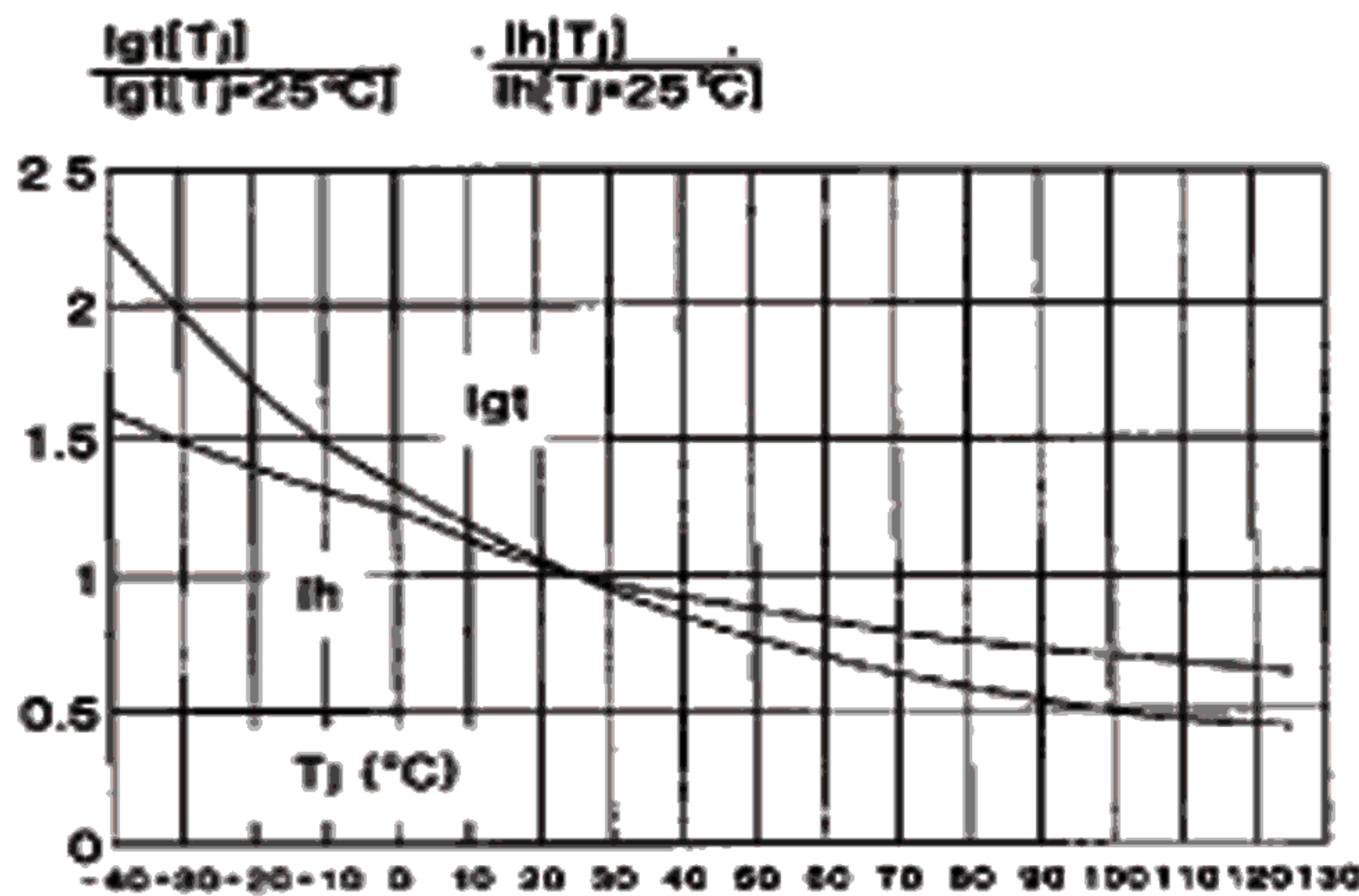
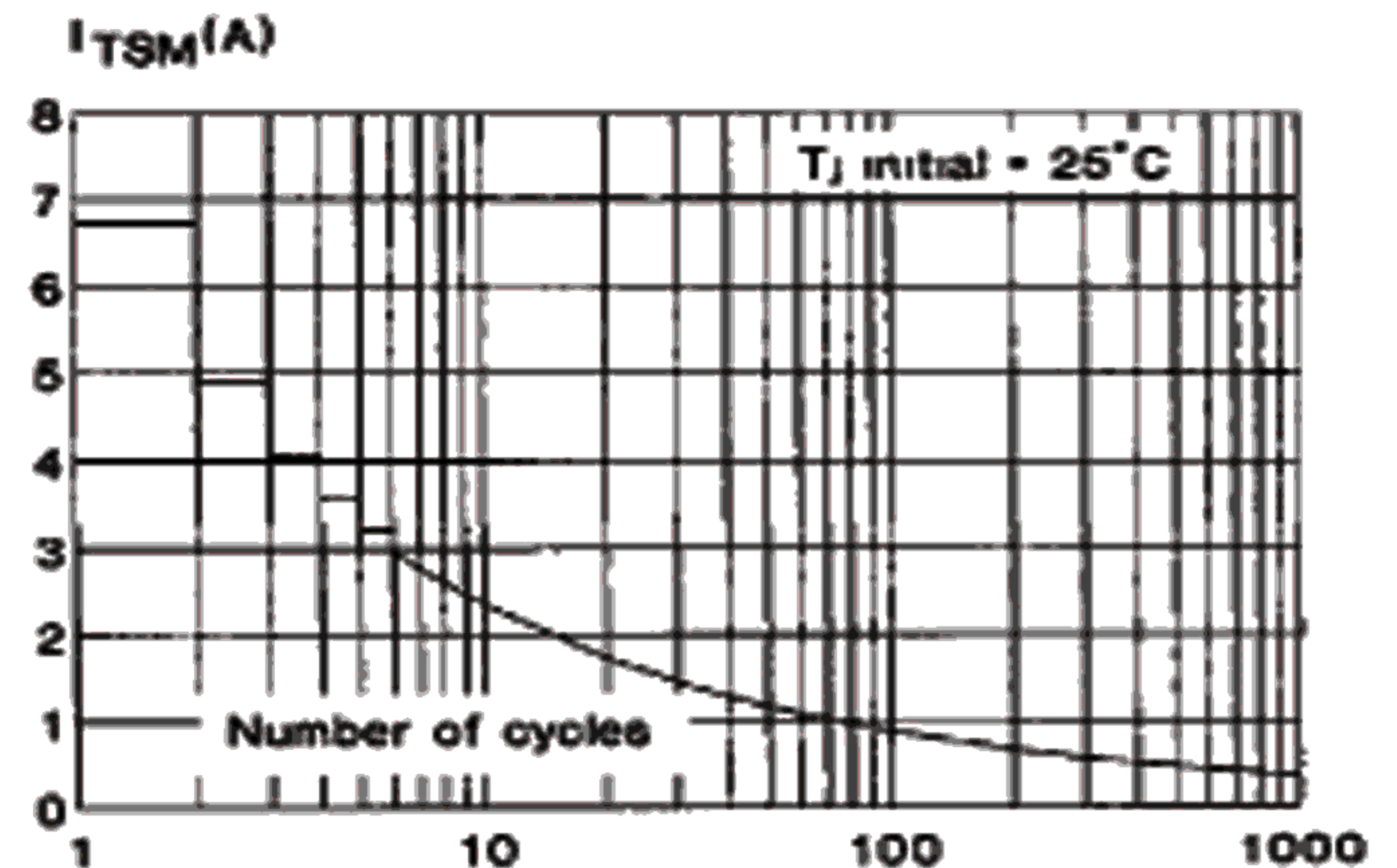


Fig.6 : Non Repetitive surge peak on-state current versus number of cycles.



T08 A

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 .

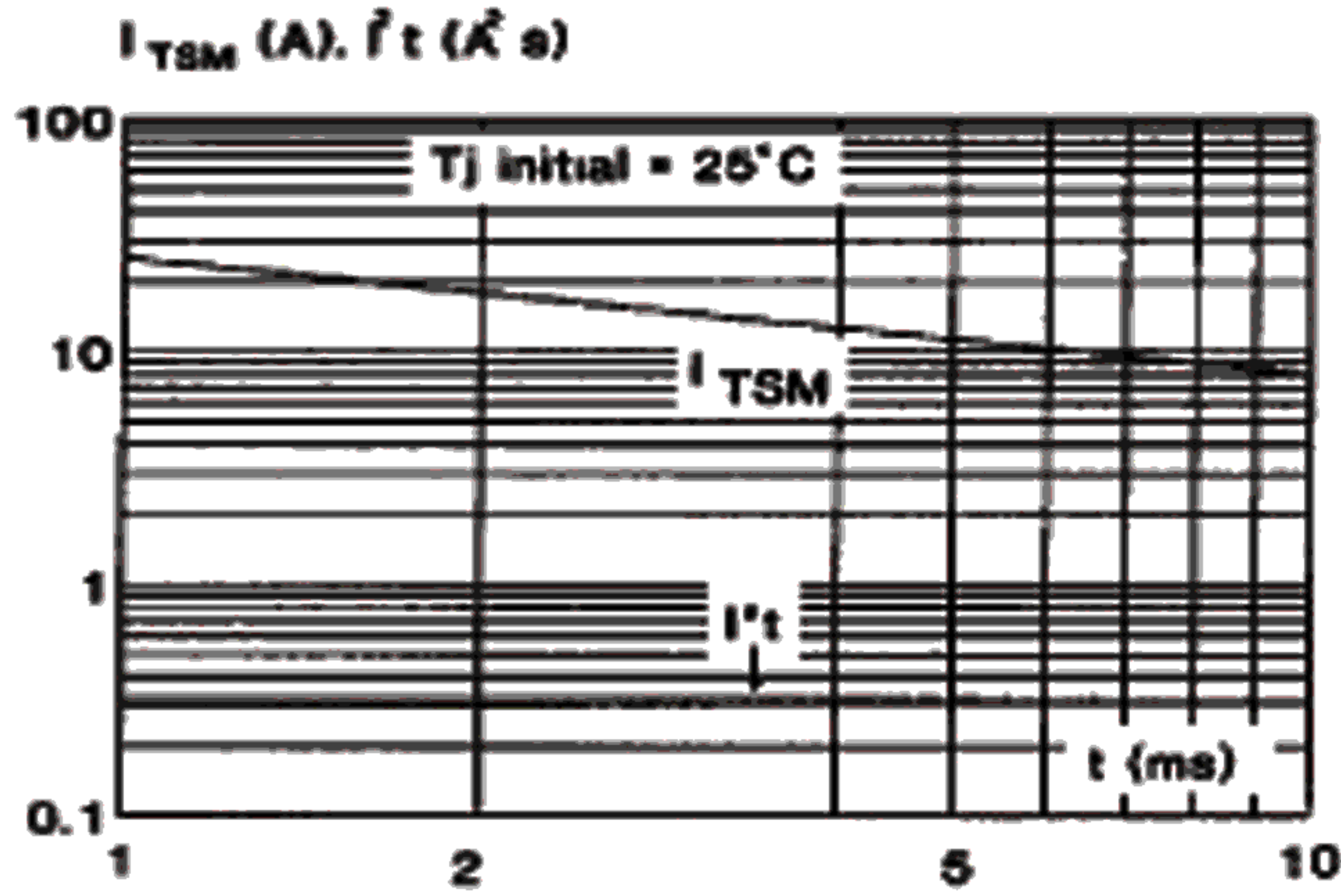
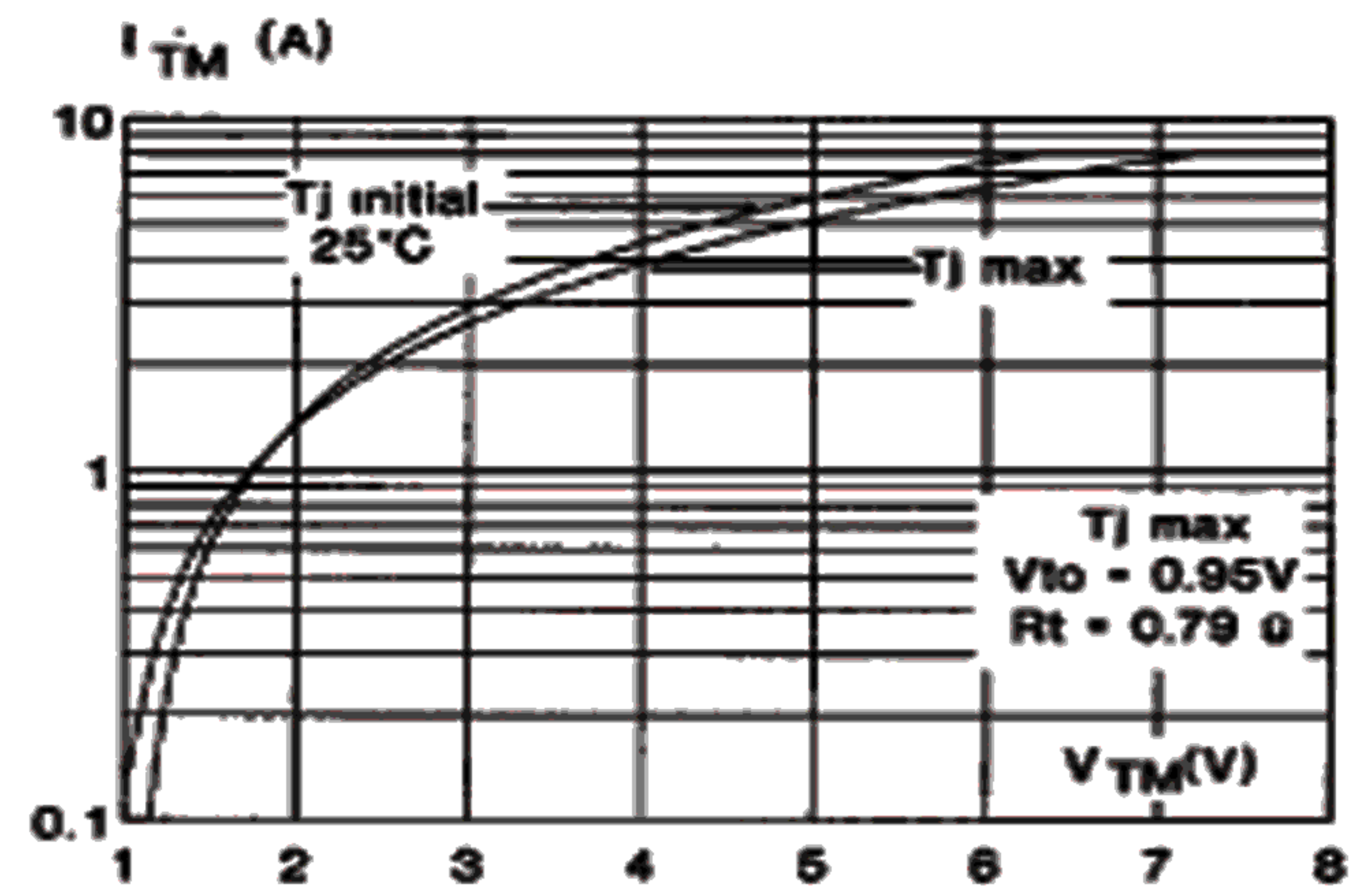
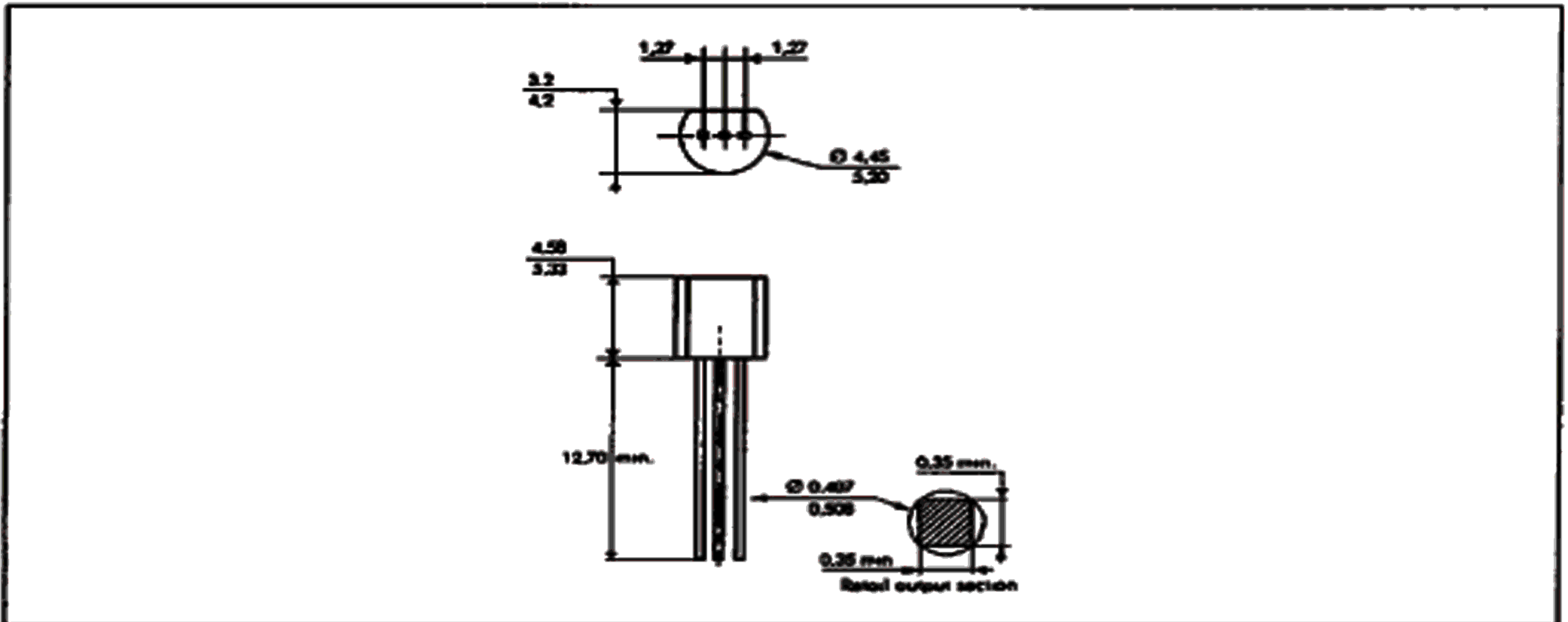


Fig.8 : On-state characteristics (maximum values).



PACKAGE MECHANICAL DATA (in millimeters) TO 92 Plastic



Cooling method : by conduction (method C)
 Marking : type number
 Weight : 0.2 g
 Polarity : N A
 Stud torque : N A