

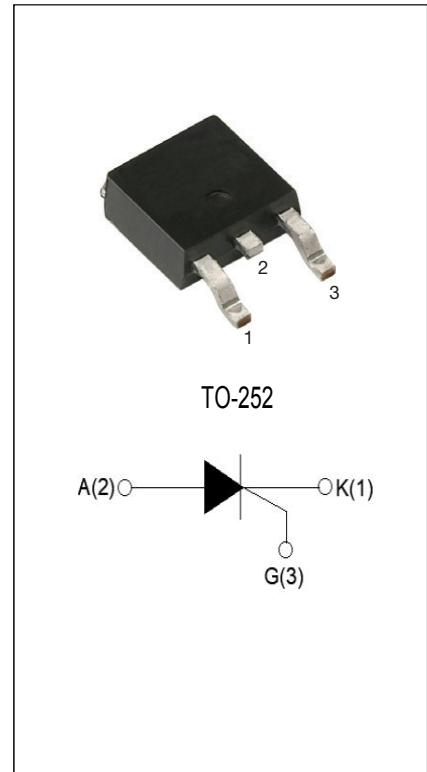
2P4M

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	2	A
V_{DRM}/V_{RRM}	600	V
I_{GT1}	200	μA

DESCRIPTION:

The 2P4M 2A SCR series provide high dv/dt rate with strong resistance to electromagnetic interference. They are especially recommended for use on residual current circuit breaker, straight hair, igniter etc.



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	$^{\circ}C$
Operating junction temperature range	T_j	-40-110	$^{\circ}C$
Repetitive peak off-state voltage ($T_j=25^{\circ}C$)	V_{DRM}	600	V
Repetitive peak reverse voltage ($T_j=25^{\circ}C$)	V_{RRM}	600	V
RMS on-state current ($T_c \leq 90^{\circ}C$)	$I_{T(RMS)}$	2	A
Non repetitive surge peak on-state current (full cycle, $t_p=20ms$, $T_j=25^{\circ}C$)	I_{TSM}	20	A
I^2t value for fusing ($t_p=10ms$, $T_j=25^{\circ}C$)	I^2t	2	A^2s
Critical rate of rise of on-state current ($T_j=125^{\circ}C$)	di/dt	50	$A/\mu s$
Peak gate current ($t_p=20\mu s$, $T_j=110^{\circ}C$)	I_{GM}	0.2	A
Average gate power dissipation ($T_j=125^{\circ}C$)	$P_{G(AV)}$	0.5	W

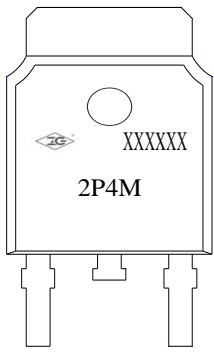
ELECTRICAL CHARACTERISTICS ($T_j=25^\circ\text{C}$ unless otherwise specified)

Symbol	Test Condition	Value		Unit
I_{GT}	$V_D=12\text{V}$ $R_L=100$	MAX.	200	μA
V_{GT}		MAX.	1.5	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=100$	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	MAX.	6	mA
I_H	$I_T=50\text{mA}$	MAX.	5	mA
dV/dt	$V_D=2/3V_{DRM}$ $T_j=125$	MIN.	20	$\text{V}/\mu\text{s}$

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=1.5\text{A}$	$T_j=25^\circ\text{C}$	1.40	V
V_{TO}	Threshold voltage	$T_j=125^\circ\text{C}$	0.92	V
R_D	Dynamic resistance	$T_j=125^\circ\text{C}$	36.8	$\text{m}\Omega$
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25^\circ\text{C}$	5	μA
I_{RRM}		$T_j=125^\circ\text{C}$	1	mA

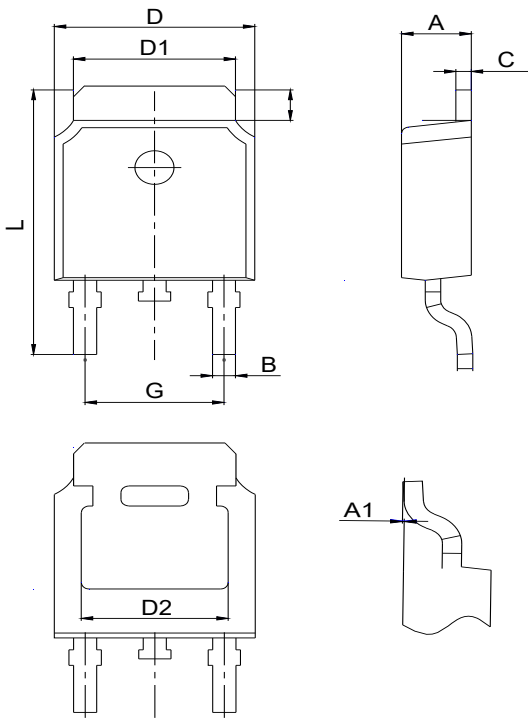
MARKING

 <p>XXXXXX 2P4M</p>	<p>X XX XXX</p> <p>Year ——— ——— Internal Code Week ——— ———</p>
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ORDERING INFORMATION

Order code	Voltage V _{DRM} /V _{R_{RRM}} (V)	Package	Base qty. (pcs)	Delivery mode
2P4M	600	TO-252	2500	REEL

PACKAGE MECHANICAL DATA



TO-252

Ref.	Dimensions		
	Milimeters		
	Min.	Typ.	Max.
A	2.10	2.30	2.50
A1	/	/	0.13
B	0.47	0.67	0.87
C	0.30	0.50	0.70
D	6.40	6.60	6.80
D1	5.13	5.33	5.53
D2	4.830REF		
G	4.37	4.57	4.77
L	9.80	10.00	10.20

PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-252	REEL	2.5K	5K	54K

FIG.1: Maximum power dissipation versus RMS on-state current

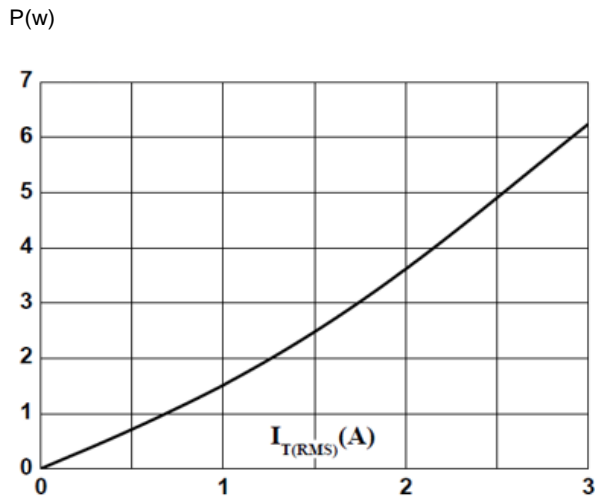


FIG.2: RMS on-state current versus case temperature

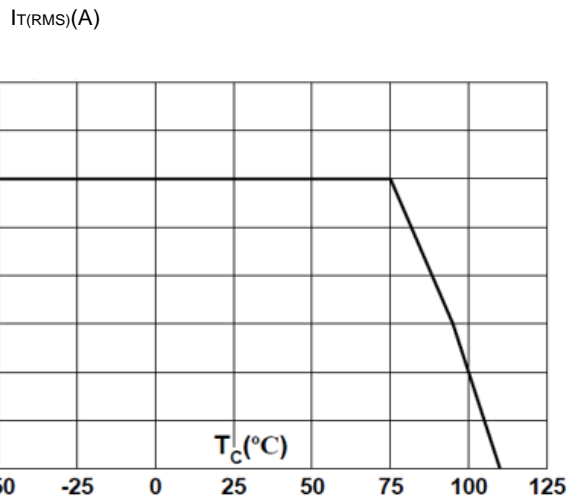


FIG.3: Surge peak on-state current versus number of cycles

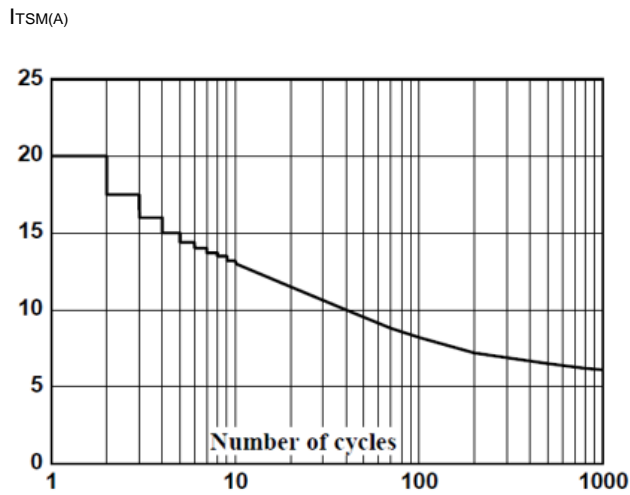


FIG.4: On-state characteristics (maximum values)

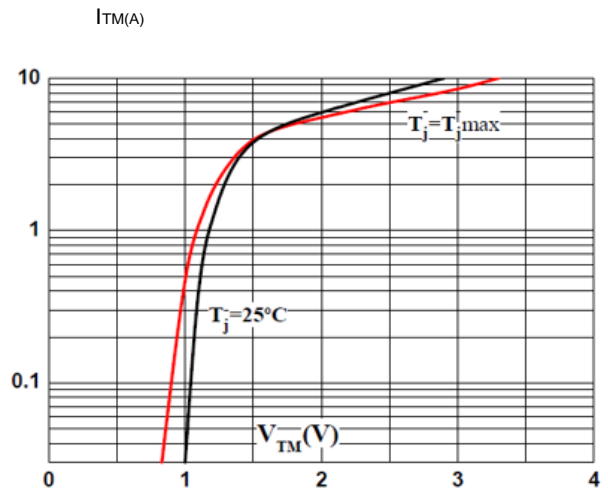


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10\text{ms}$

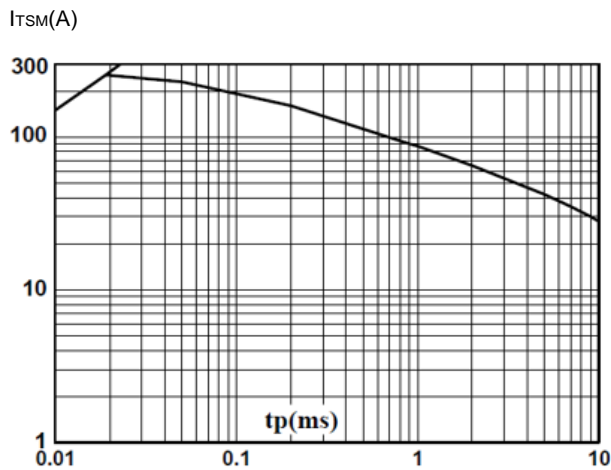


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

