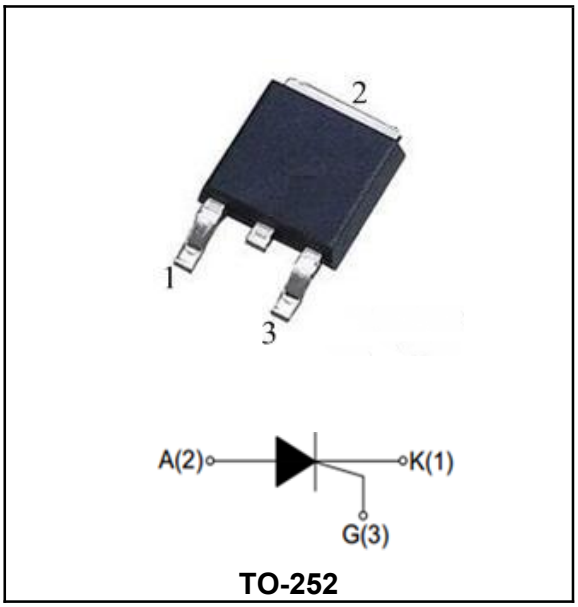
2A Standard SCRs



Product Summary

Symbol	Value	Unit
$I_{T(AV)}$	2	A
V_{DRM} V_{RRM}	600/800	V
V_{TM}	1.55	V

Features

With high ability to withstand the shock loading of arge current, Provide high dv/dt rate with strong resistance to electromagnetic interference

Application

Power charger, T-tools, massager, solid staterelay, AC Motor speed regulation and so on.

Order Information

Part Number	Package	Marking	Packing	Packing Quantity
2P4M	TO-252	2P4M XXXX	Tape	3000PCS/Tape

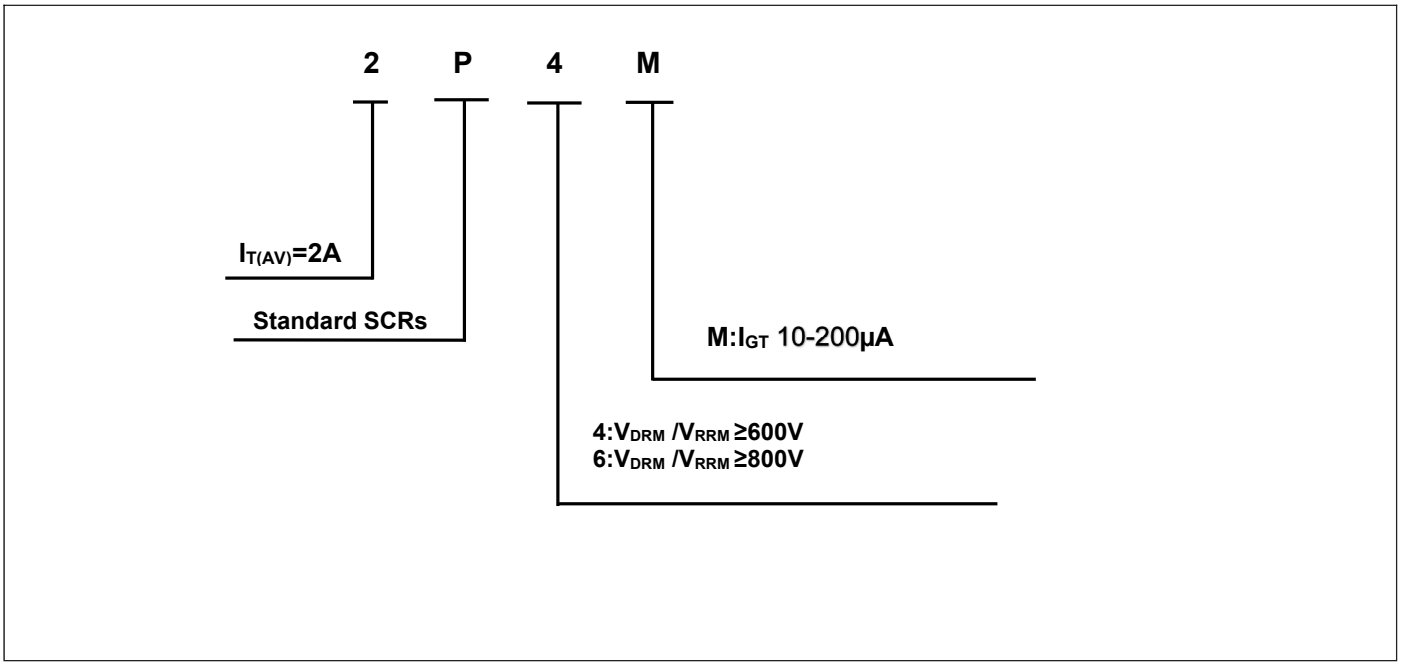
Absolute maximum ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive peak off-state voltage	V_{DRM}	600/800	V
Repetitive peak reverse voltage	V_{RRM}	600/800	V
Average on-state current	$I_{T(AV)}$	2	A
RMS on-state current	$I_{T(RMS)}$	3	A
Non repetitive surge peak on-state current	I_{TSM}	20	A
I^2t value for fusing (tp=10ms)	I^2t	2	A^2S
Critical rate of rise of on-state current	dI_T/dt	50	A/μs
Peak gate current（tp=20us，Tj=110℃）	I_{GM}	0.2	A
Average gate power dissipation（T_j=110℃）	P_G（AV）	0.1	W
Junction Temperature	T_J	-40-+110	°C
Storage Temperature	T_{STG}	-40 ~+150	°C

Electrical characteristics (T_A=25°C, unless otherwise noted)

Parameter	Symbol	Test Condition		Value			Unit
				Min	Typ	Max	
Gate trigger current	I_{GT}	V_D=6V,R_L=100Ω,R_{GK}=1kΩ		10	-	200	μA
Gate trigger voltage	V_{GT}	V_D=12V,R_L=100Ω, R_{GK}=1kΩ		-	-	0.8	v
Gate non-trigger voltage	V_{GD}	V_D=1/2V,$_{DRM}$,R_{GK}=1kΩ,T_j=110℃		0.2	-	-	v
Holding current	I_H	V_D=24V,R_{GK}=1kΩ,I_{TM}=4A,T_j=25℃		-	1	3	mA
latching current	I_L	I_G=1.2I_{GT}		-	-	4	mA
Critical-rate of rise of commutation voltage	dVD/dt	V_D=2/3V_{DRM}, R_{GK}=1kΩ,T_j=110℃		10	-	-	V/μs
STATIC CHARACTERISTICS							
Forward "on" voltage	V_{TM}	I_{TM}=4A		-	-	1.55	V
Repetitive Peak Off-State Current	I_{DRM}	V_D=V_{DRM}/V_{RRM},T_j=25℃		-	-	5	μA
Repetitive Peak Reverse Current	I_{RRM}	V_D=V_{DRM}/V_{RRM},T_j=110℃		-	-	100	μA
THERMAL RESISTANCES							
Thermal resistance	Rth(j-c)	Junction to case		TYP.		6.5	°C/W
	Rth(j-a)	Junction to ambient	S=0.5cm²	TYP.		70	°C/W

rdering Information



Typical Characteristics

FIG.1: Maximum power dissipation versus RMS on-state current (full cycle)

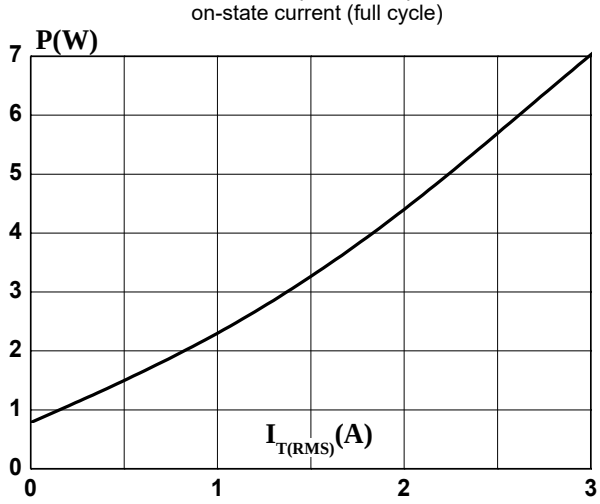


FIG.2: RMS on-state current versus case temperature (full cycle)

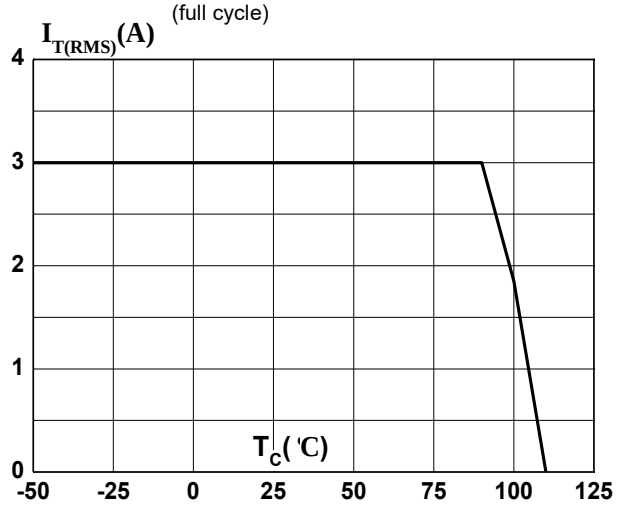


FIG.3: Surge peak on-state current versus number of cycles

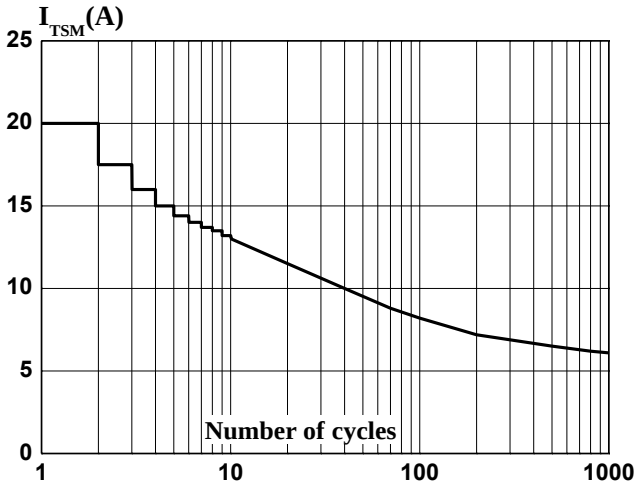


FIG.4: On-state characteristics (maximum values)

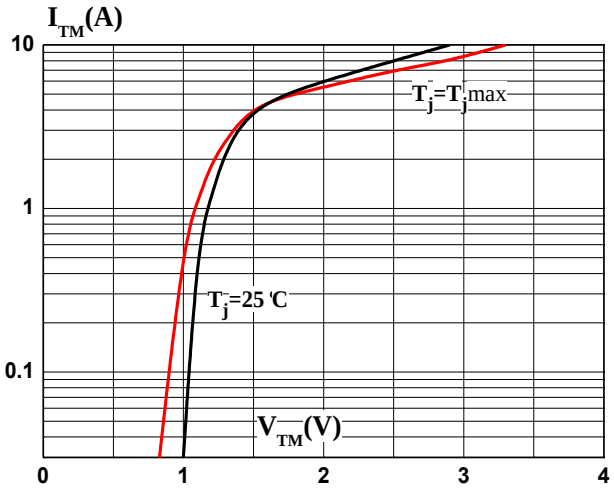


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp < 10ms

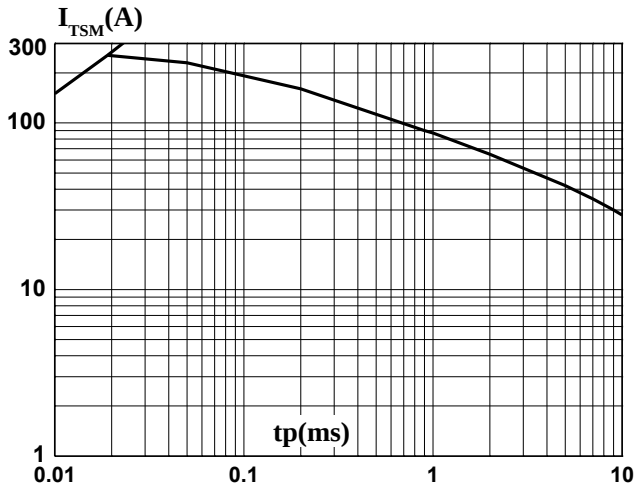
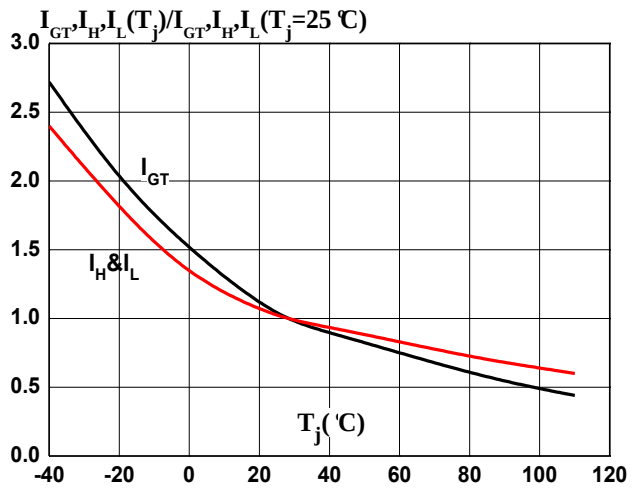
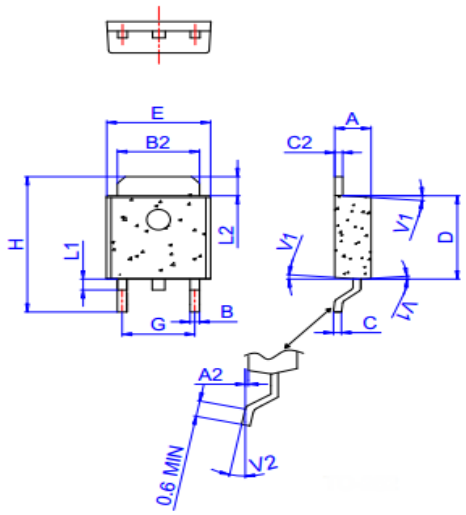


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature (typical values)



Package Information

TO-252



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.20		2.40	0.086		0.095
A2	0.03		0.23	0.001		0.009
B	0.55		0.65	0.022		0.026
B2	5.10		5.40	0.200		0.213
C	0.45		0.62	0.018		0.024
C2	0.48		0.62	0.019		0.024
D	6.00		6.20	0.236		0.244
E	6.40		6.70	0.252		0.264
G	4.40		4.70	0.173		0.185
H	9.35		10.6	0.368		0.417
L1	1.30		1.70	0.051		0.067
L2	1.37		1.50	0.054		0.059
V1		4°			4°	
V2	0°		8°	0°		8°