

**2A Sensitive SCRs**
**Product Summary**

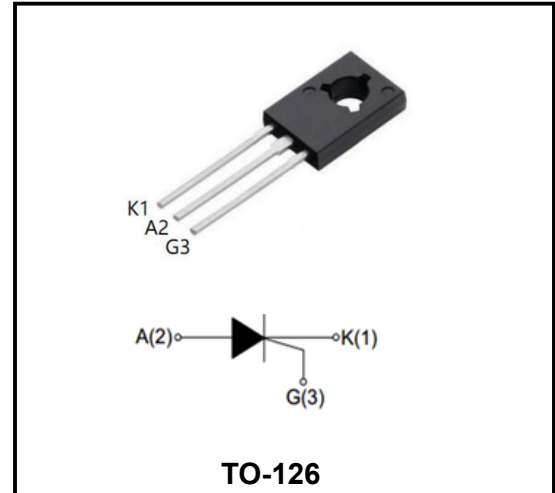
Symbol	Value	Unit
$I_{T(AV)}$	2	A
$V_{DRM} V_{RRM}$	600/800	V
$I_{GT}$	200	$\mu A$

**Features**

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

**Application**

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


**Order Information**

Part Number	Package	Marking	packing	Delivery Quantity
2P4MC	TO-126	2P4M XXXX	Bag	500pcs/Bag

**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
RMS on-state current	$I_T(RMS)$	3	A
Average on-state current	$I_T(AV)$	2	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	$I_{TSM}$	20	A
$I^2t$ value for fusing (tp=10ms)	$I^2t$	2	A <sup>2</sup> s
Critical rate of rise of on-state current ( $I_G = 2 \times I_{GT}$ )	$di_T/dt$	I - II - III   50	A/ $\mu s$
Peak gate current	$I_{GM}$	0.2	A
Average gate power dissipation	$P_G (AV)$	0.1	W
Junction Temperature	$T_J$	-40~+110	°C
Storage Temperature	$T_{STG}$	-40 ~+150	°C

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

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Gate trigger current	I <sub>GT</sub>	V <sub>D</sub> =6V, R <sub>L</sub> =100Ω R <sub>GK</sub> =1kΩ, Fig. 6	10		200	μA
Gate trigger voltage	V <sub>GT</sub>	V <sub>D</sub> =12V, R <sub>L</sub> =100Ω, R <sub>GK</sub> =1kΩ			0.8	V
Non-triggering gate voltage	V <sub>GD</sub>	V <sub>D</sub> =1/2V <sub>DRM</sub> , R <sub>GK</sub> =1kΩ, T <sub>j</sub> =110°C	0.2			V
Holding current	I <sub>H</sub>	V <sub>D</sub> =24V, R <sub>GK</sub> =1kΩ, I <sub>TM</sub> =4A, T <sub>j</sub> =25°C, Fig. 6		1	3	mA
Latching current	I <sub>L</sub>	I <sub>G</sub> =1.2I <sub>GT</sub> , Fig. 6			4	mA
Critical-rate of rise of commutation voltage	dV <sub>D</sub> /dt	V <sub>D</sub> =2/3V <sub>DRM</sub> , R <sub>GK</sub> =1kΩ, T <sub>j</sub> =110°C	10			V/μs

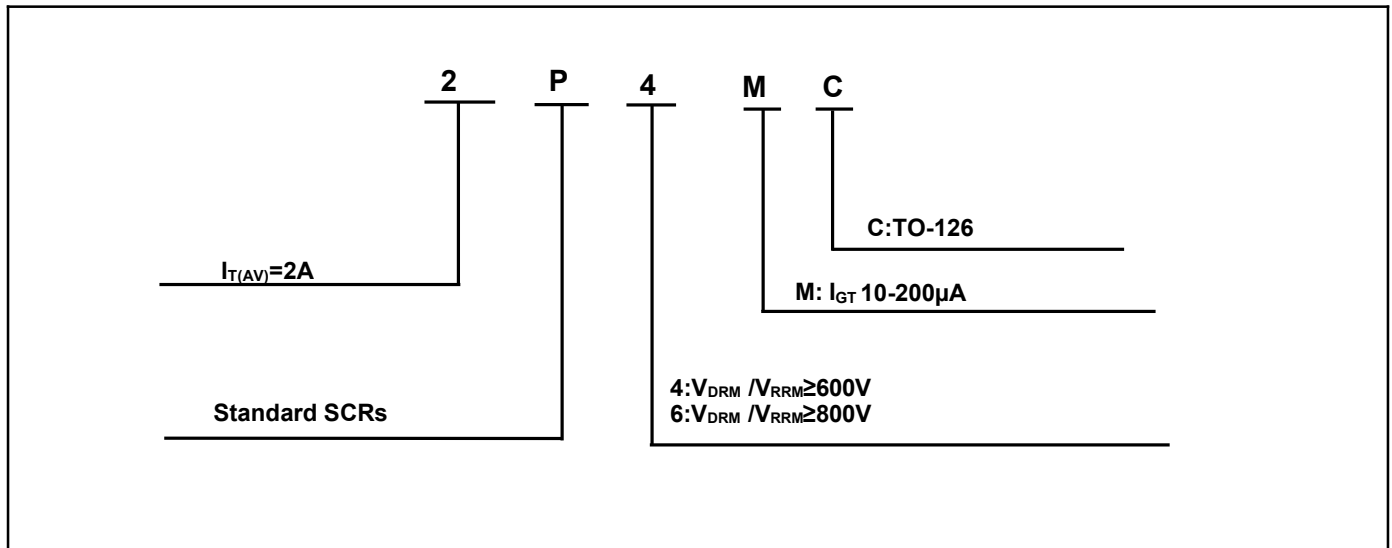
**STATIC CHARACTERISTICS**

On-state Voltage	V <sub>TM</sub>	I <sub>TM</sub> =4A, Fig. 4			1.55	V
Repetitive Peak Off-State Current	I <sub>DRM</sub>	V <sub>D</sub> =V <sub>DRM</sub> =V <sub>RRM</sub>	T <sub>j</sub> =25°C		5	μA
Repetitive Peak Reverse Current	I <sub>RRM</sub>		T <sub>j</sub> =110°C		100	μA

**THERMAL RESISTANCES**

Thermal resistance	R <sub>th(j-c)</sub>	Junction to case	TYP.	7.2	°C/W
	R <sub>th(j-a)</sub>	Junction to ambient	TYP.	100	°C/W

**Ordering Information**



Typical Characteristics

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

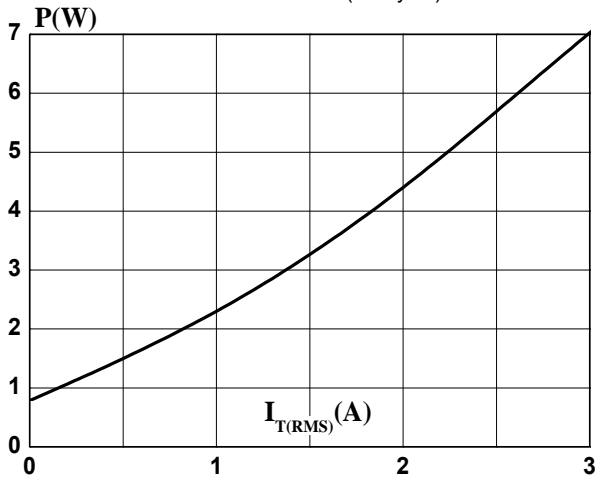


FIG.2: RMS on-state current versus case temperature (full cycle)

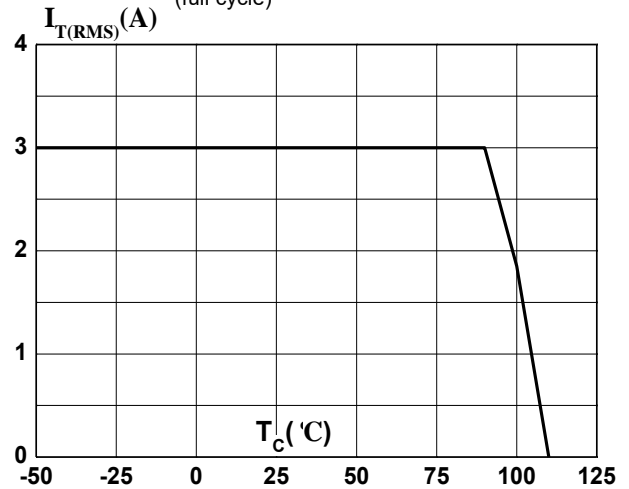


FIG.3: Surge peak on-state current versus number of cycles

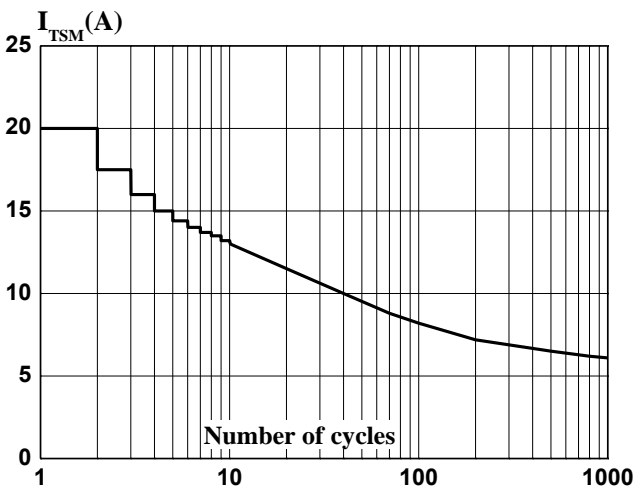


FIG.4: On-state characteristics (maximum values)

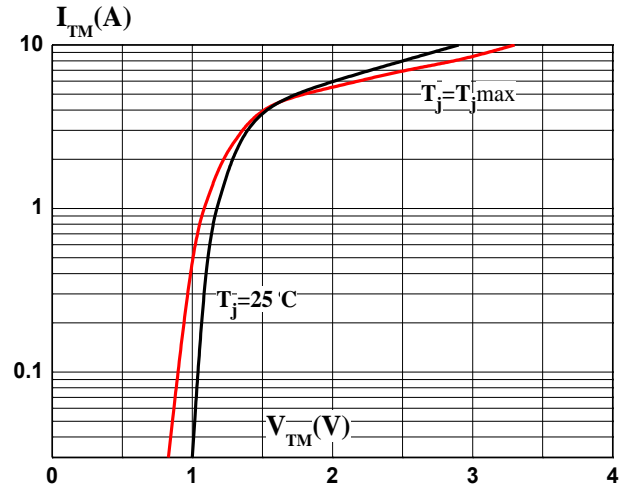


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 10\text{ms}$

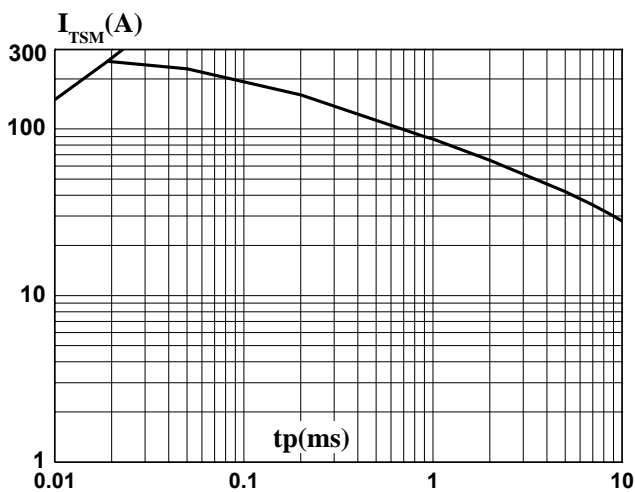
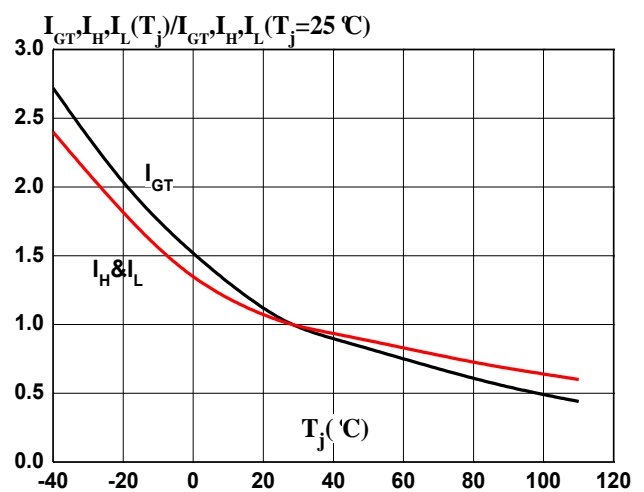


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature (typical values)



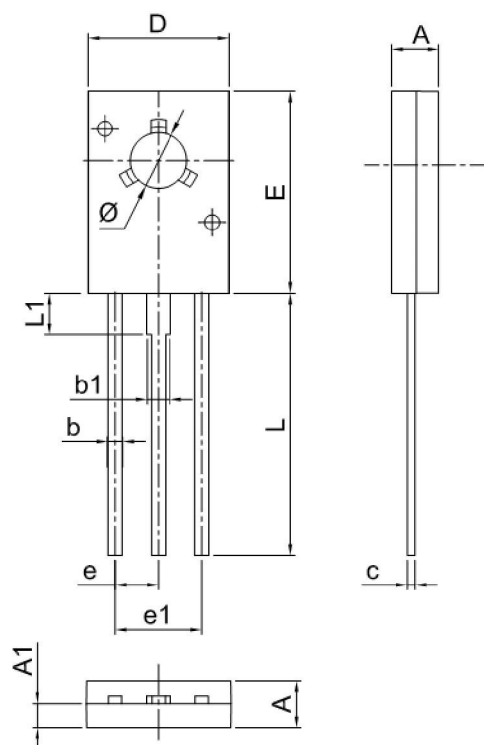
**Ordering information**

Package	Packing Description	Base Quantity
TO-126	Bulk	500pcs/Bag

**Package Dimensions**

**TO-126**

Symbol	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.80	0.094	0.110
A1	1.00	1.40	0.039	0.055
b	0.66	0.86	0.026	0.034
b1	1.17	1.37	0.046	0.054
c	0.40	0.60	0.016	0.024
D	7.30	7.70	0.287	0.303
E	10.60	11.00	0.417	0.433
e	2.25	2.33	0.089	0.092
e1	4.50	4.66	0.177	0.183
L	14.00	15.00	0.551	0.591
L1	1.90	2.50	0.075	0.098
Φ	3.10	3.30	0.122	0.130



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