

## 产品规格书

### Specification of products

产品名称: 整流管模块

产品型号: MDC200A-M2

浙江世菱半导体有限公司  
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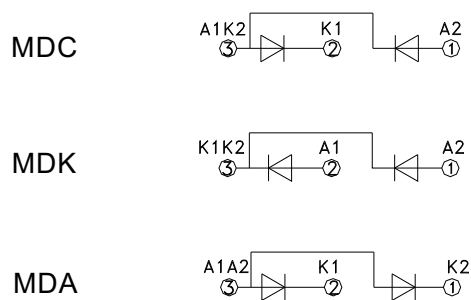
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拟制	审核	核准
林益龙	曹剑龙	宗瑞

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>T(AV)</sub> I <sub>F(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Single side cooled, T <sub>c</sub> =85°C	125		200		A
I <sub>T(RMS)</sub>	RMS on-state current	Single side cooled, T <sub>c</sub> =85°C	125		314		A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak on-state voltage Repetitive peak reverse voltage	V <sub>DRM</sub> &V <sub>RRM</sub> tp=10ms V <sub>DSM</sub> &V <sub>RSM</sub> = V <sub>DRM</sub> &V <sub>RRM</sub> +200V respectively	125	600		1800	V
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>	125			9	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave	125			6.80	KA
I <sup>2</sup> t	I <sup>2</sup> T for fusing coordination	V <sub>R</sub> =60%V <sub>RRM</sub>				231.2	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage		125			0.84	V
r <sub>T</sub>	On-state slop resistance					1.13	mΩ
V <sub>FM</sub>	Peak on-state voltage	I <sub>TM</sub> =600A	125		1.3		V
V <sub>GD</sub>	Non-trigger gate voltage	At 67%V <sub>DRM</sub>	125			1.3	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to heatsink	At 180° sine Single side cooled				0.170	°C /W
V <sub>iso</sub>	Isolation voltage	50Hz, RM S, t=1min, I <sub>iso</sub> 1mA (MAX)		3000			V
F <sub>m</sub>	Thermal connection torque( M6)				5.0		N.m
	Mounting torque( M6)				5.0		N.m
T <sub>stg</sub>	Stored temperature			-40		140	°C
W <sub>t</sub>	Weight				190		g
Outline							

### OUTLINE DRAWING & CIRCUIT DIAGRAM



### Rating and Characteristic

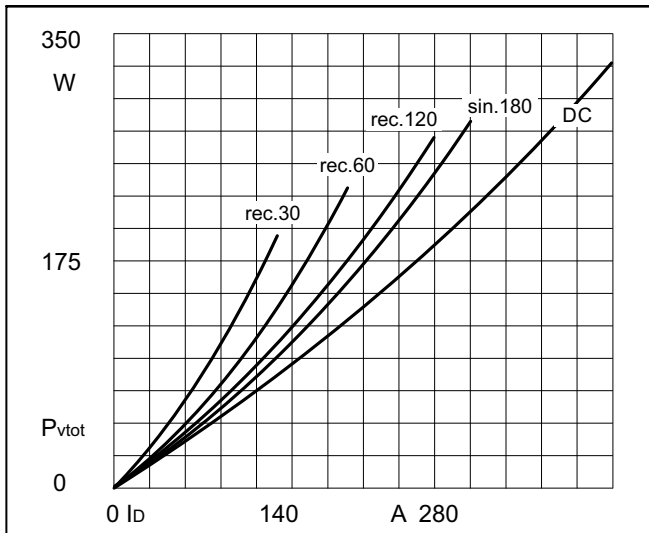


Fig1. Power dissipation

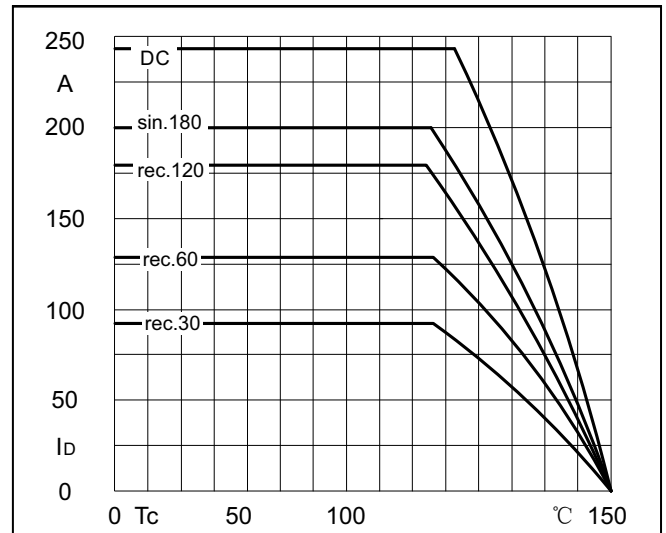


Fig2. Forward Current Derating Curve

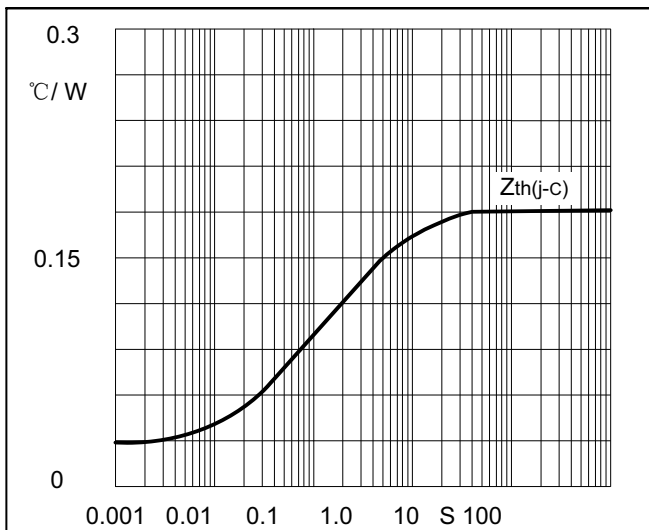


Fig3. Transient thermal impedance

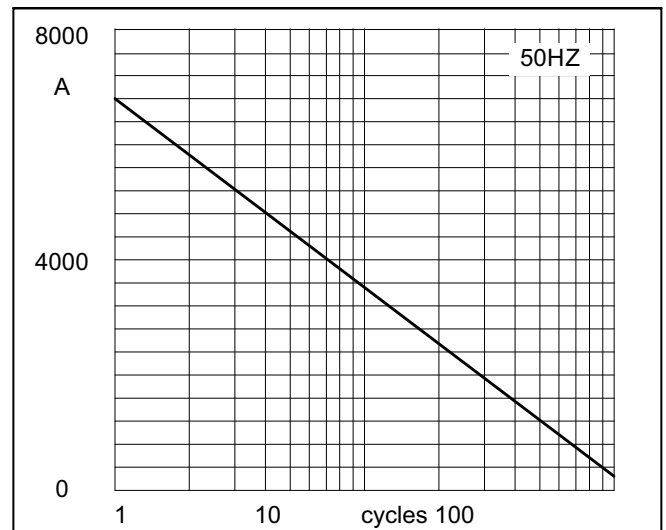


Fig4. Max Non-Repetitive Forward Surge Current

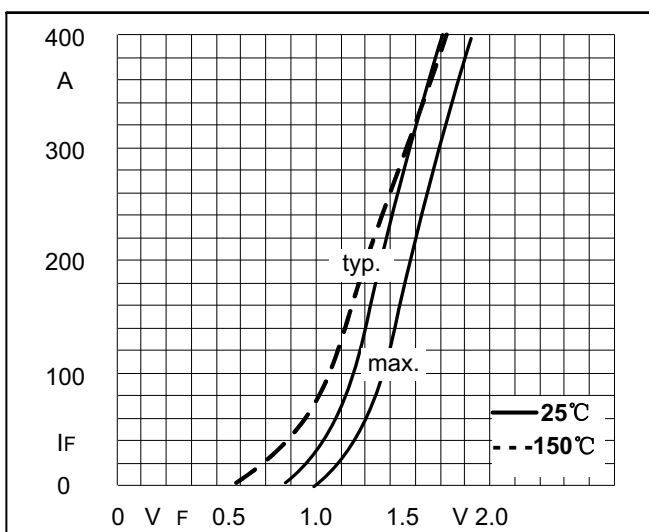


Fig5. Forward Characteristics

## Outside Dimension

