

## 产品规格书

### Specifcation of products

产品名称:肖特基二极管

产品型号: MB2X100U015NK5

浙江世菱半导体有限公司  
ZHEJIANG SHILING SEMICONDUCTOR CO., LTD.

地址: 浙江省 丽水市 莲都区

电话: (0578) 3012571 3615078

传真: (0578) 3611180

邮编: 323000

E-mail: smrshiling01@163.com

Http://www.smrshiling.com

拟制	审核	核准
林益龙	曹剑龙	宗瑞

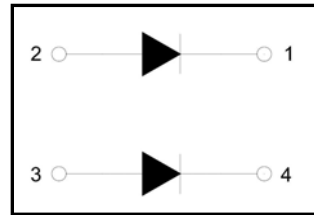
### PRODUCT FEATURES

- Ultrafast Reverse Recovery Time
- Soft Reverse Recovery Characteristics
- Low Reverse Recovery Loss
- High System Power Density
- Popular SOT-227 Package



### APPLICATIONS

- Inversion Welder
- Uninterruptible Power Supply (UPS)
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- Power Factor Correction (PFC) Circuit



### ABSOLUTE MAXIMUM RATINGS

$T_C=25^{\circ}\text{C}$  unless otherwise specified

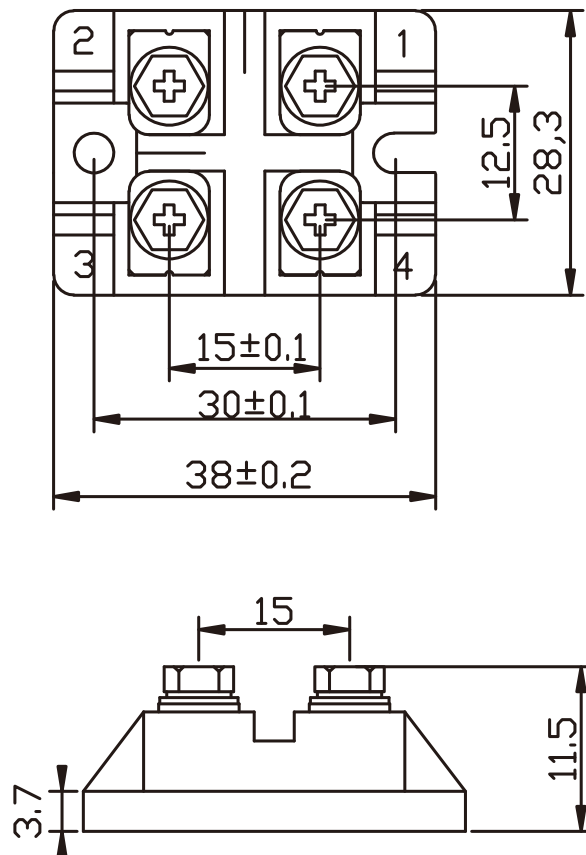
Symbol	Parameter	Test Conditions	Values	Unit
$V_R$	Maximum D.C. Reverse Voltage		150	V
$V_{RRM}$	Maximum Repetitive Reverse Voltage		150	V
$I_{F(AV)}$	Average Forward Current	$T_C=90^{\circ}\text{C}$ , Per Diode	100	A
		$T_C=90^{\circ}\text{C}$ , Per Mouldle	200	A
		$T_C=100^{\circ}\text{C}$ , 20KHz, Per Mouldle	150	A
$I_{F(RMS)}$	RMS Forward Current	$T_C=90^{\circ}\text{C}$ , Per Diode	150	A
$I_{FSM}$	Non-Repetitive Surge Forward Current	1/2 Cycle, 50Hz, Sine	1500	A
		1/2 Cycle, 60Hz, Sine	1800	A
$I^2t$	$I^2t$ (For Fusing)	$T_J=45^{\circ}\text{C}$ , $t=10\text{ms}$ , 50Hz, Sine	11250	$\text{A}^2\text{s}$
		$T_J=45^{\circ}\text{C}$ , $t=8.3\text{ms}$ , 60Hz, Sine	16200	$\text{A}^2\text{s}$
$P_D$	Power Dissipation		315	W
$T_J$	Junction Temperature		-40 to +150	$^{\circ}\text{C}$
$T_{STG}$	Storage Temperature Range		-40 to +125	$^{\circ}\text{C}$
$V_{isol}$	Insulation Test Voltage	AC, $t=1\text{min}$	3000	V
Torque	To-Sink	Recommended (M4)	0.7~1.1	N.m
Torque	To-Terminal	Recommended (M4)	0.7~1.1	N.m
$R_{\theta C}$	Thermal Resistance	Junction-to-Case	0.30	$^{\circ}\text{C} / \text{W}$
Weight			38.5	g

### ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I <sub>RM</sub>	Reverse Leakage Current	V <sub>R</sub> =150V	--	--	0.5	mA
		V <sub>R</sub> =150V, T <sub>J</sub> =125°C	--	--	2	mA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =100A	--	0.80	0.90	V
		I <sub>F</sub> =100A, T <sub>J</sub> =125°C	--	0.70	--	V

### Package Outline



Dimensions (mm)