

产品规格书

Specification of products

产品名称:肖特基二极管

产品型号: MB2X120U45NK5

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

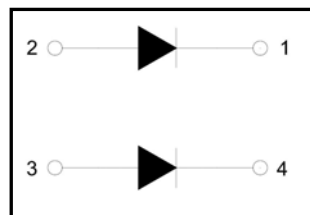
PRODUCT FEATURES

- 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°C unless otherwise specified

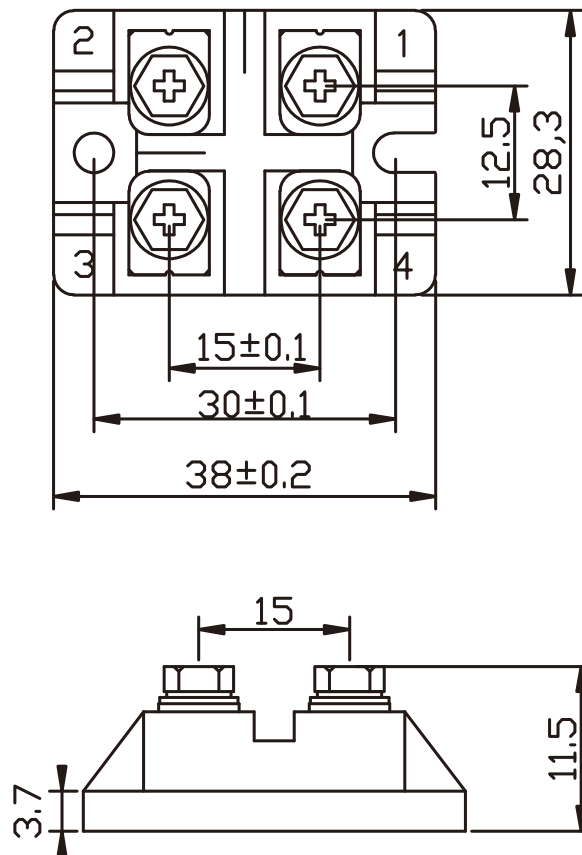
Symbol	Parameter	Test Conditions	Values	Unit
V _R	Maximum D.C. Reverse Voltage		45	V
V _R RM	Maximum Repetitive Reverse Voltage		45	V
I _{F(AV)}	Average Forward Current	T _C =90°C, Per Diode	120	A
		T _C =90°C, Per Mouldle	240	A
		T _C =100°C, 20KHz, Per Mouldle	150	A
I _{F(RMS)}	RMS Forward Current	T _C =90°C, Per Diode	160	A
I _{FSM}	Non-Repetitive Surge Forward Current	1/2 Cycle, 50Hz, Sine	1800	A
		1/2 Cycle, 60Hz, Sine	2100	A
I ² t	I ² t (For Fusing)	T _J =45°C, t=10ms, 50Hz, Sine	13500	A ² s
		T _J =45°C, t=8.3ms, 60Hz, Sine	19440	A ² s
P _D	Power Dissipation		215	W
T _J	Junction Temperature		-40 to +150	°C
T _{STG}	Storage Temperature Range		-40 to +125	°C
V _{isol}	Insulation Test Voltage	AC, t=1min	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 _{θC}	Thermal Resistance	Junction-to-Case	0.30	°C /W
Weight			38.5	g

ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I _{RM}	Reverse Leakage Current	V _R =45V	--	--	0.5	mA
		V _R =45V, T _J =125°C	--	--	2	mA
V _F	Forward Voltage	I _F =120A	--	0.50	0.55	V
		I _F =120A, T _J =125°C	--	0.40	--	V

Package Outline



Dimensions (mm)