

产品规格书

Specifcation of products

产品名称:肖特基二极管

产品型号: MB2X100U2NK5

浙江世菱半导体有限公司
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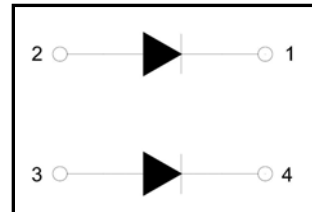
PRODUCT FEATURES

- 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

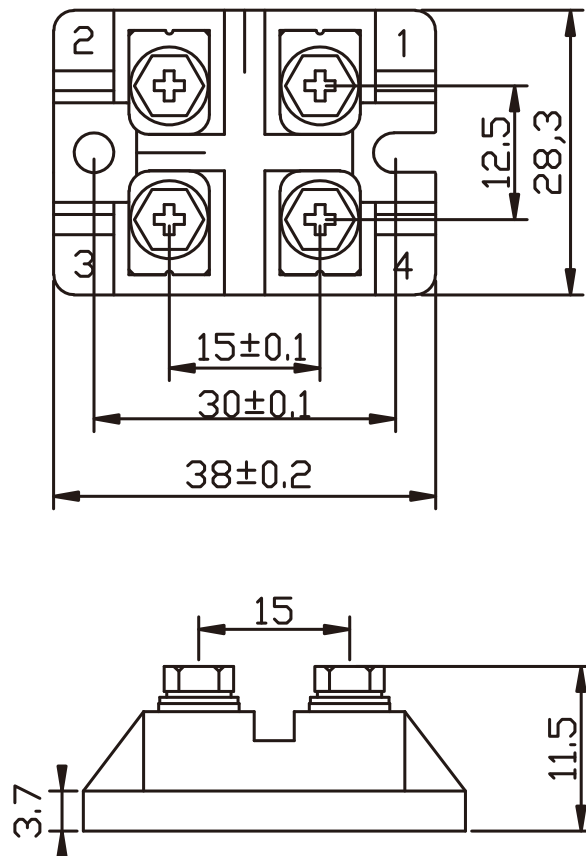
Symbol	Parameter	Test Conditions	Values	Unit
V_R	Maximum D.C. Reverse Voltage		200	V
V_{RRM}	Maximum Repetitive Reverse Voltage		200	V
$I_{F(AV)}$	Average Forward Current	$T_C=90^{\circ}\text{C}$, Per Diode	100	A
		$T_C=90^{\circ}\text{C}$, Per Mouldle	200	A
		$T_C=100^{\circ}\text{C}$, 20KHz, Per Mouldle	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	A^2s
		$T_J=45^{\circ}\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine	16200	A^2s
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_C=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I _{RM}	Reverse Leakage Current	V _R =200V	--	--	0.5	mA
		V _R =200V, T _J =125°C	--	--	2	mA
V _F	Forward Voltage	I _F =100A	--	0.80	0.90	V
		I _F =100A, T _J =125°C	--	0.70	--	V

Package Outline



Dimensions (mm)