

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

## MURSXXB-MS

Product specification



**SURFACE MOUNT ULTRAFAST RECTIFIER****VOLTAGE:300V TO 600V****CURRENT: 3.0A****Features**

- Ideally suited for use in very high frequency switching power
- supplies, inverters and as free wheeling diodes
- Ultrafast recovery time for high efficiency
- High surge capability
- High temperature soldering guaranteed
- 260°C/10sec/at terminals
- Glass passivated chip

**Mechanical Data**

- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Case: Molded with UL-94 class V-0 recognized Flame Retardant Epoxy
- Polarity: Color band denotes cathode end

**Reference News**

PACKAGE OUTLINE	Marking
	
SMB(DO-214AA)	*** Representative VRRM

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**(single-phase, half-wave, 60HZ, resistive or

inductive load rating at 25°C, unless otherwise stated,for capacitive load, derate current by 20%)

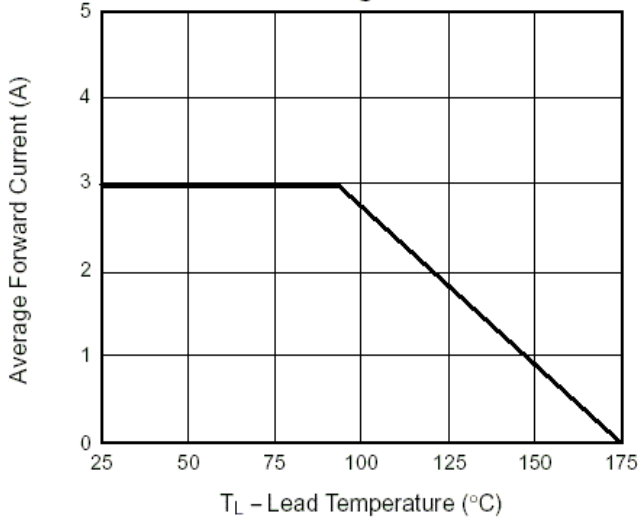
	SYMBOL	MURS330B-MS	MURS340B-MS	MURS360B-MS	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	300	400	600	V
Maximum RMS Voltage	V <sub>rms</sub>	210	280	420	V
Maximum DC blocking Voltage	V <sub>dc</sub>	300	400	600	V
Maximum Average Forward Rectified Current 3/8"lead length at T <sub>L</sub> =90°C	I <sub>f(av)</sub>	3.0			A
Peak Forward Surge Current 8.3ms single half sine- wave superimposed on rated load	I <sub>fsm</sub>	125.0			A
Maximum Instantaneous Forward Voltage at rated forward current T <sub>J</sub> =25°C	V <sub>f</sub>	1.25			V
Maximum DC Reverse Current at rated DC blocking voltage Ta=25°C Ta =125°C	I <sub>r</sub>	10.0 50.0			μA
Maximum Reverse Recovery Time (Note1 )	T <sub>rr</sub>	50			nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	50			pF
Typical Thermal Resistance, junction to lead	R <sub>th(jl)</sub>	11			°C/W
Storage and Operating Junction Temperature	T <sub>stg</sub> , T <sub>j</sub>	-55 to +175			°C

Note:

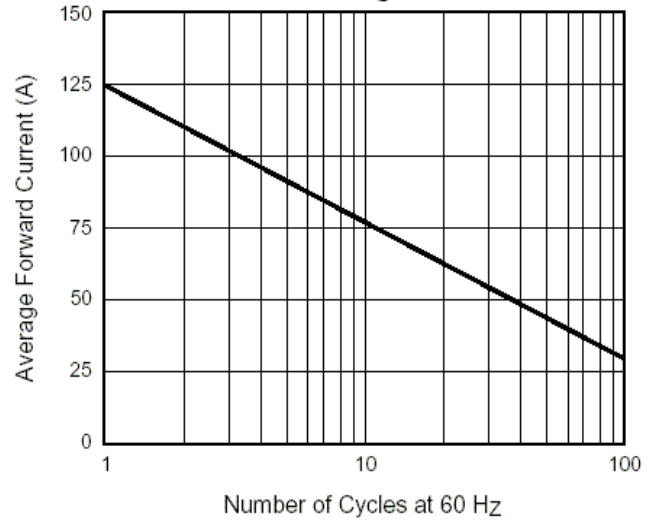
1. Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V<sub>dc</sub>

**RATINGS AND CHARACTERISTIC CURVES MURSXXB-MS**

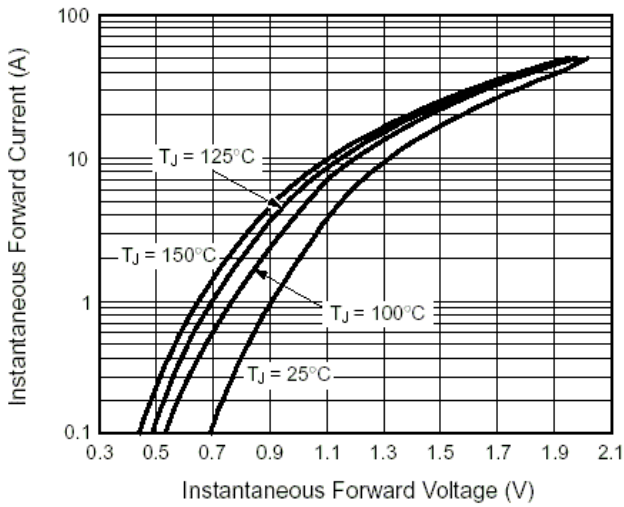
**Fig. 1 – Forward Current Derating Curve**



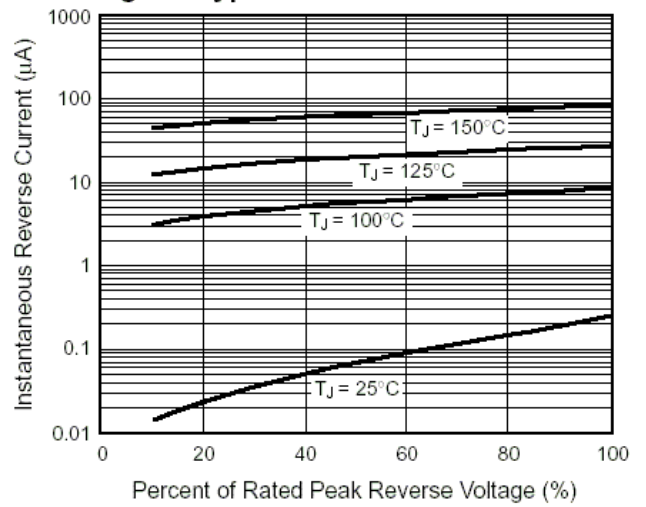
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



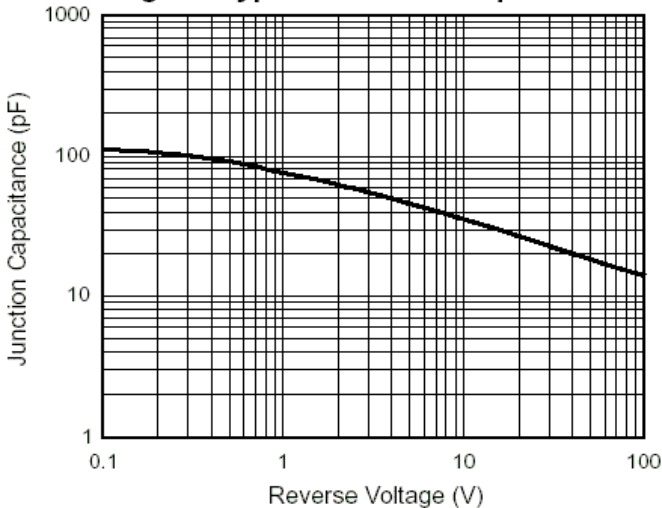
**Fig. 3 – Typical Instantaneous Forward Characteristics**



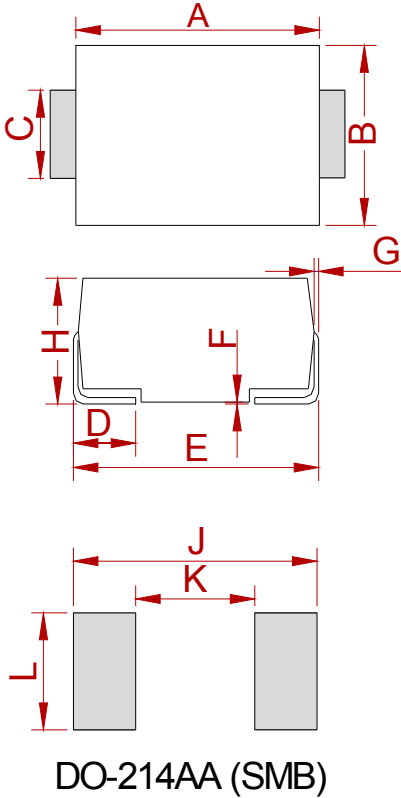
**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**



**PACKAGE MECHANICAL DATA**



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.75	0.167	0.187
B	3.30	3.94	0.130	0.155
C	1.85	2.21	0.073	0.087
D	0.76	1.52	0.030	0.060
E	5.08	5.59	0.200	0.220
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.11	2.44	0.083	0.096
J	6.80		0.270	
K		2.60		0.100
L	2.40		0.090	

**REEL SPECIFICATION**

P/N	PKG	QTY
MURSXXB-MS	DO-214AA(SMB)	3000

## Attention

- Any and all MSKSEMI Semiconductor products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your MSKSEMI Semiconductor representative nearest you before using any MSKSEMI Semiconductor products described or contained herein in such applications.
- MSKSEMI Semiconductor assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all MSKSEMI Semiconductor products described or contained herein.
- Specifications of any and all MSKSEMI Semiconductor products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.
- MSKSEMI Semiconductor strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with some probability. It is possible that these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits and error prevention circuits for safe design, redundant design, and structural design.
- In the event that any or all MSKSEMI Semiconductor products (including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.
- No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of MSKSEMI Semiconductor.
- Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. MSKSEMI Semiconductor believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the MSKSEMI Semiconductor product that you intend to use.