# MSKSEMI















**ESD** 

TVS

TSS

MOV

GDT

**PLED** 

# Broduct data sheet



Semiconductor



**SOD-323** 



#### **FEATURES**

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance

#### **MARKING:**

SD103AWS:S4	SD103BWS:S5	SD103CWS:S6		
- III S4 III +	- II S 5 III +	- I S 6 II +		

Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25℃

Parameter	Symbol	SD103AWS	SD103BWS	SD103CWS	Unit
Peak Repetitive Peak Reverse Voltage	$V_{RRM}$				
Working Peak Reverse Voltage	$V_{RWM}$	40	30	20	V
DC Blocking Voltage	$V_R$				
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	21	14	<b>V</b>
Forward Continuous Current	I <sub>FM</sub>	350		mA	
Bcblfepetitive Peak Forward Surge Current @t1, " a s	I <sub>FSM</sub>	2.0		А	
Power Dissipation	Pd	200		mW	
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500		°C/W	
Junction Temperature	Tj	-40~+125			$^{\circ}$
Storage Temperature	T <sub>STG</sub>	-55~+150 °C			$^{\circ}\!\mathbb{C}$

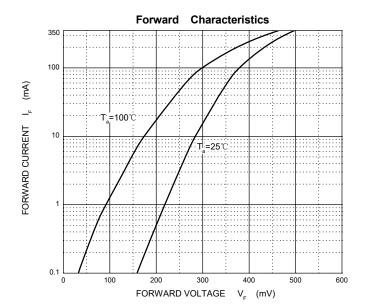
Electrical Ratings @Ta=25℃

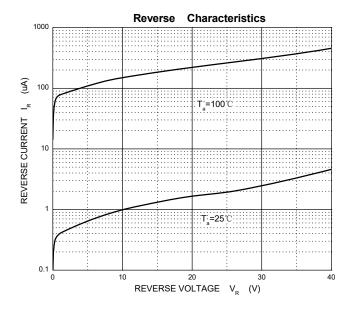
Parameter	Symbol	Min	Тур	Max	Unit	Conditions
Reverse breakdown voltage						
SD103AWS	.,	40			V	I <sub>R</sub> =100μA
SD103BWS	$V_{(BR)}$	30				I <sub>R</sub> =100μA
SD103CWS		20				I <sub>R</sub> =100μA
Famuund valtana				0.37	V	I <sub>F</sub> =20mA
Forward voltage	V <sub>F</sub>			0.60		I <sub>F</sub> =200mA
Reverse current						
SD103AWS				5.0		V <sub>R</sub> =30V
SD103BWS	I <sub>RM</sub>			5.0	μA	V <sub>R</sub> =20V
SD103CWS						V <sub>R</sub> =10V
Capacitance between terminals	Ст			50	pF	V <sub>R</sub> =0V,f=1.0MHz
Doverno magazini di ma	t <sub>rr</sub>		10	10	ns	$I_F=I_R=200$ mA
Reverse recovery time						Irr=0.1 $XI_R$ , $R_L$ =100 $\Omega$

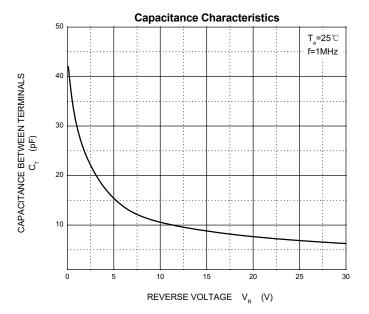


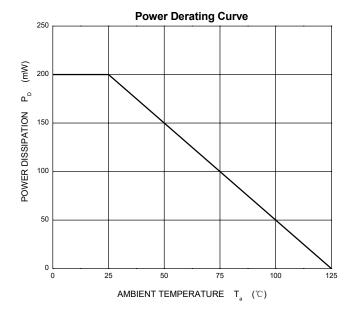
Semiconductor







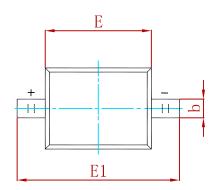


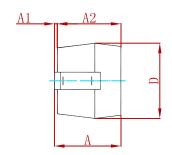


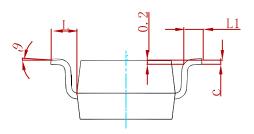
Semiconductor



# PACKAGE MECHANICAL DATA

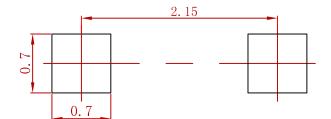






Cumbal	Dimensions	In Millimeters	Dimensions In Inches		
Symbol	Min.	Max.	Min.	Max.	
Α		1.000		0.039	
A 1	0.000	0.100	0.000	0.004	
A2	0.800	0.900	0.031	0.035	
b	0.250	0.350	0.010	0.014	
С	0.080	0.150	0.003	0.006	
D	1.200	1.400	0.047	0.055	
E	1.600	1.800	0.063	0.071	
E1	2.550	2.750	0.100	0.108	
L	0.475 REF.		0.019 REF.		
L1	0.250	0.400	0.010	0.016	
θ	0°	8°	0°	8°	

# **Suggested Pad Layout**



#### Note:

- 1.Controlling dimension:in millimeters.
- 2.General tolerance:± 0.05mm.
- 3. The pad layout is for reference purposes only.

### **REEL SPECIFICATION**

P/N	PKG	QTY
SD103AWS-SD103CWS	SOD-323	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 specificationsof any andall MSKSEMI Semiconductor products described orcontained 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 someprobability. It is possiblethat 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 anderror prevention circuitsfor safedesign, 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 theauthorities 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 infringementsof intellectual property rights or other rightsof third parties.
- Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. Whendesigning equipment, referto the "Delivery Specification" for the MSKSEMI Semiconductor product that you intend to use.