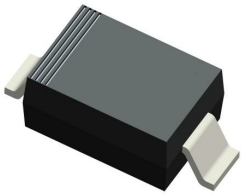
Technical Data
Data Sheet N0929, Rev. B

SD103AWS-SD103CWS SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER DIODE



SOD-323

Features

- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring Transient and ESD Protection
- Designed for Surface Mount Application
- Plastic Material —UL Recognition Flammability Classification 94V-O
- Green Products in Compliance with the ROHS Directive
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration

Mechanical Characteristics

- Case: SOD-323, Molded plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.04 grams(approx)

Maximum Ratings @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SD103AWS	SD103BWS	SD103CWS	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	30	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	21	14	V
Forward Continuous Current	I_{FM}	0.35			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	2			A
Power Dissipation	P_d	200			mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500			°C/W
Junction Temperature Range	T_J	125			°C
Storage Temperature Range	T_{STG}	-55 to +150			°C

Technical Data
Data Sheet N0929, Rev. B

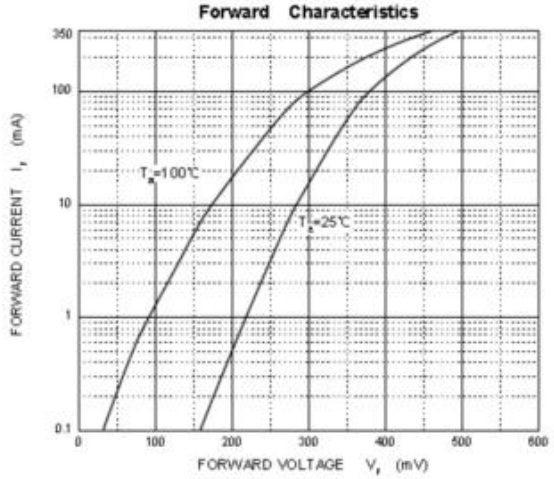
RoHS

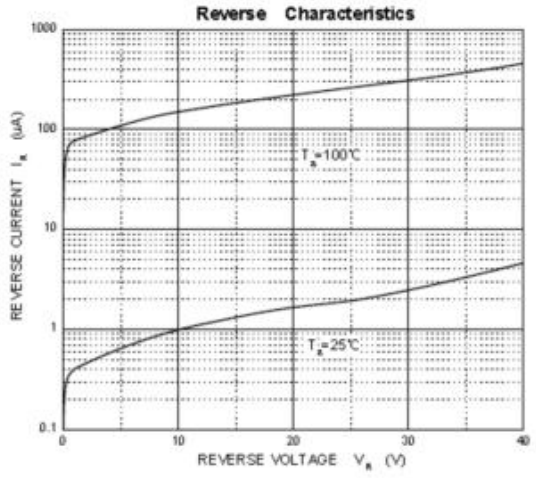
Electrical Characteristics @T_A=25°C unless otherwise specified

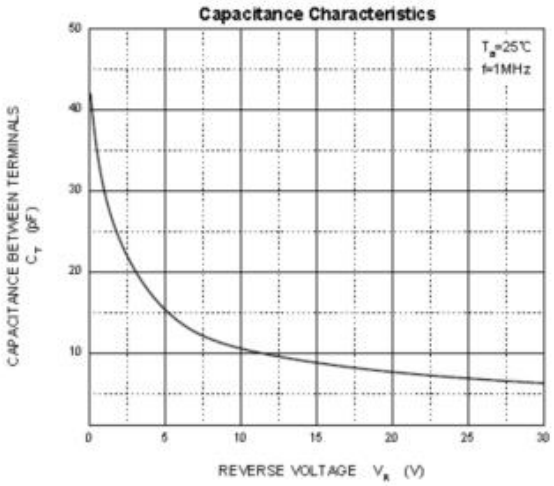
Characteristic	Symbol	Min	Typ	Max	Units	Test Condition
Reverse Breakdown Voltage *	$V_{(BR)}$	40	-	-	V	I_R=100μA SD103AWS
		30				I_R=100μA SD103BWS
		20				I_R=100μA SD103CWS
Forward Voltage *	V_{FM}	-	-	0.37	V	I_F=20mA
		-	-	0.60	V	I_F=200mA
Reverse Leakage Current *	I_{RM}	-	-	5	μA	V_R=30V SD103AWS
		-	-			V_R=20V SD103BWS
		-	-			V_R=10V SD103CWS
Capacitance between terminals	C_T	-	-	50	pF	V_R=0V,f=1.0MHz
Reverse recovery time	t_{rr}	-	10	-	ns	I_F= I_R=200mA, I_{rr}=0.1×I_R, R_L=100Ω

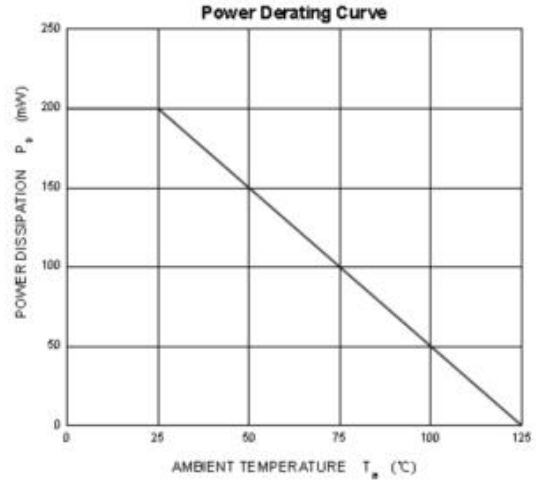
* Pulse width < 300 μs, duty cycle < 2%

Ratings and Characteristics Curves









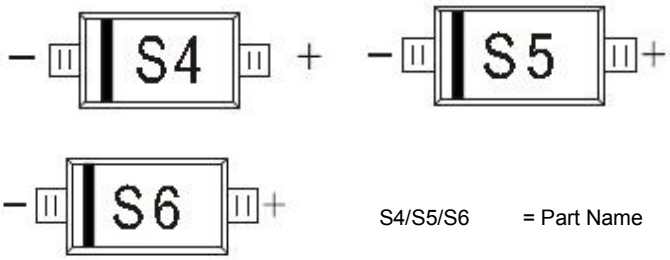
Technical Data
Data Sheet N0929, Rev. B

Ordering Information

Device	Package	Shipping
SD103AWS-SD103CWS	SOD-323 (Pb-Free)	3000pcs / reel

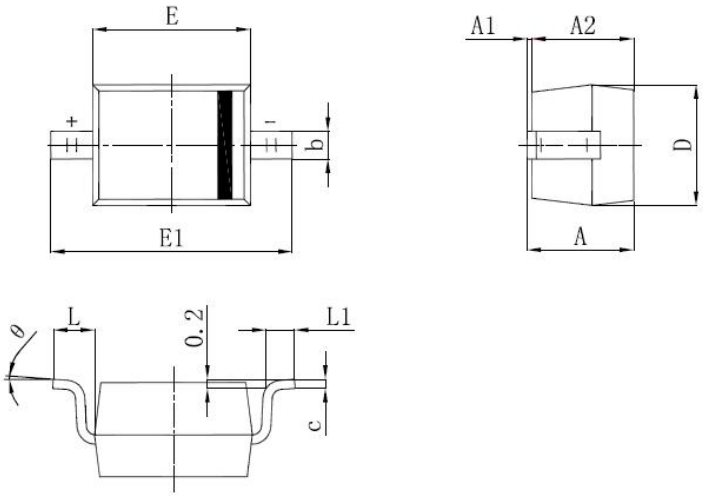
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



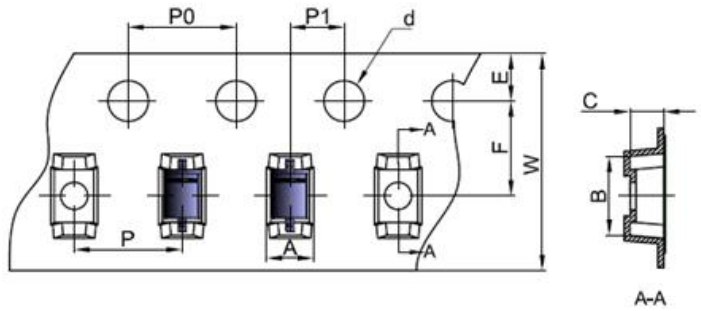
S4/S5/S6 = Part Name

Mechanical Dimensions SOD-323



SYMBOL	Millimeters		Inches	
	MIN.	MAX.	MIN.	MAX.
A	-	1.000	-	0.039
A1	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
c	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	2.500	2.700	0.098	0.106
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Carrier Tape Specification SOD-323



SYMBOL	Millimeters	
	Min.	Max.
B	2.85	2.95
C	1.20	1.30
d	1.40	1.60
E	1.65	1.85
F	3.40	3.60
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
W	7.90	8.30

Technical Data
Data Sheet N0929, Rev. B

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