

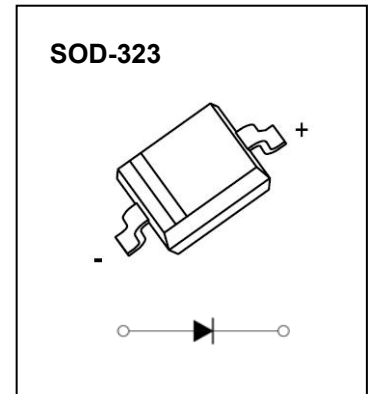
SCHOTTKY BARRIER DIODE

FEATURES

For use in low voltage, high frequency inverters
 Free wheeling, and polarity protection applications
 AEC-Q101 qualified (Automotive grade with suffix "Q".)
 Exsemi technology

MARKING:

SD103AWS:S4	SD103BWS:S5	SD103CWS:S6



The marking bar indicates the cathode
 Solid dot = Green molding compound device, if none, the normal device.

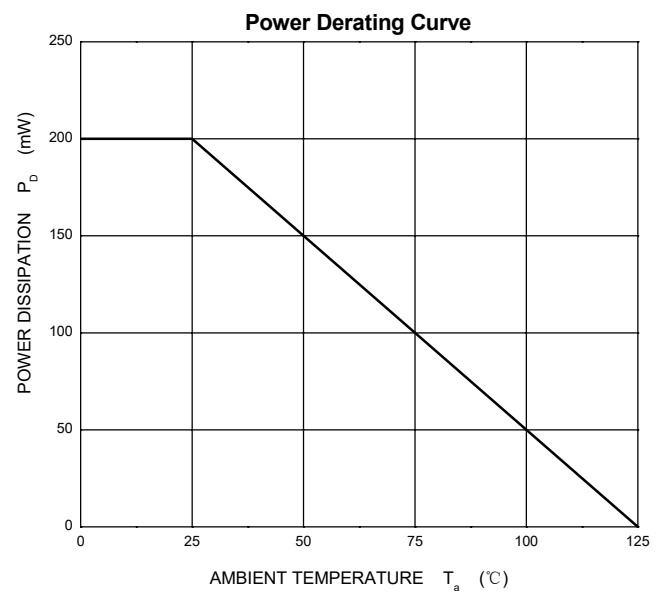
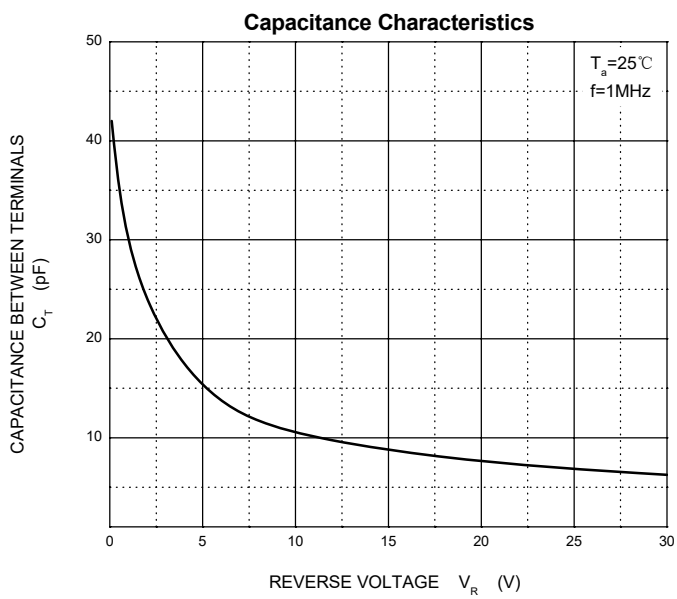
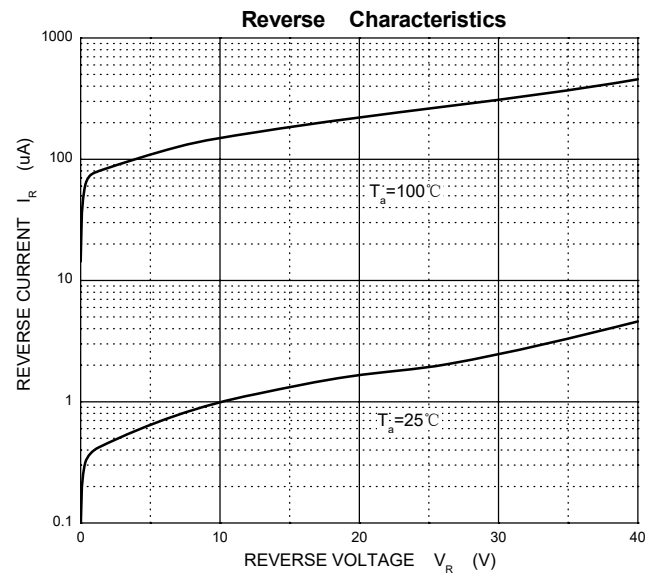
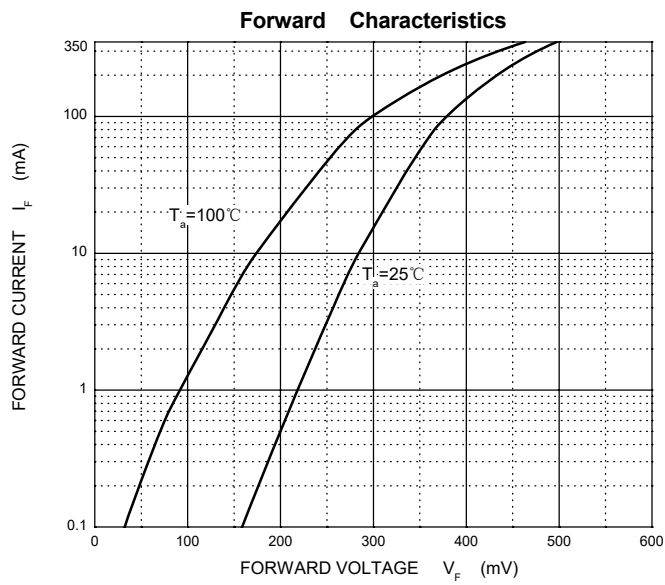
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

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	$V_{R(RMS)}$	28	21	14	V
Forward Continuous Current	I_{FM}		350		mA
Repetitive Peak Forward Surge Current @t1, " a s	I_{FSM}		2.0		A
Power Dissipation	P_d		200		mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$		500		°C/W
Junction Temperature	T_j		-40~+125		°C
Storage Temperature	T_{STG}		-55~+150		°C

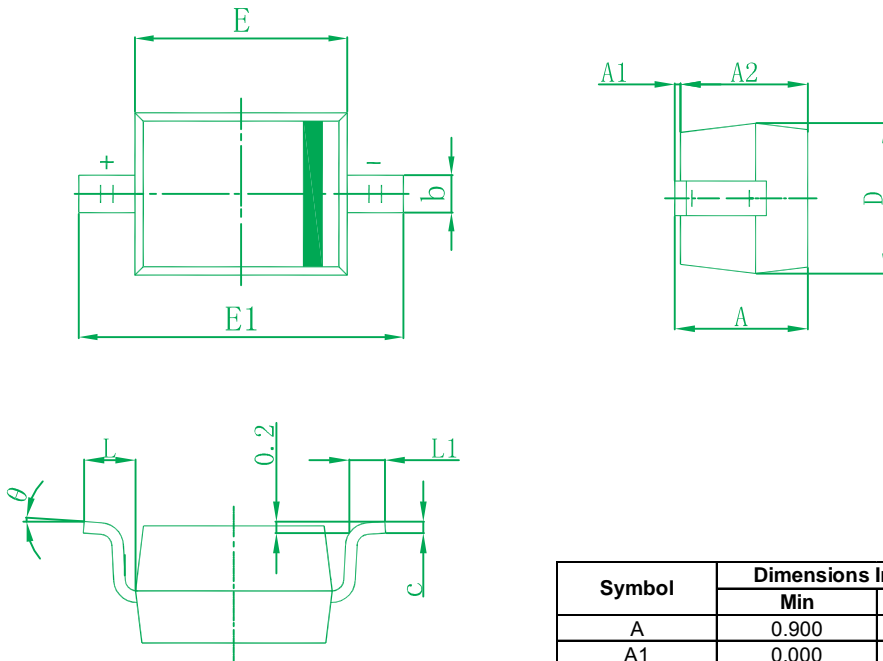
Electrical Ratings @Ta=25°C

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage	$V_{(BR)}$	40			V	$I_R=100\mu A$
SD103AWS		30				$I_R=100\mu A$
SD103BWS		20				$I_R=100\mu A$
Forward voltage	V_F			0.37 0.60	V	$I_F=20mA$ $I_F=200mA$
Reverse current	I_{RM}			5.0		μA
SD103AWS						
SD103BWS						
Capacitance between terminals	C_T			50	pF	$V_R=0V, f=1.0MHz$
Reverse recovery time	t_{rr}		10		ns	$I_F=I_R=200mA$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$

Typical Characteristics

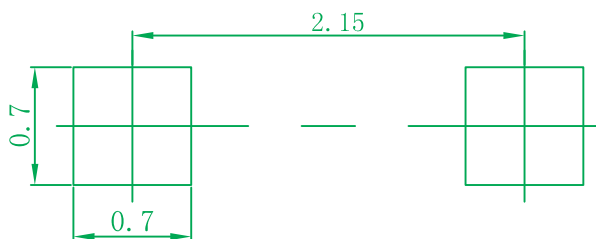


SOD-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.150	0.035	0.045
b	0.250	0.400	0.010	0.015
c	0.080	0.150	0.003	0.006
D	1.150	1.400	0.045	0.055
E	1.600	1.800	0.063	0.071
E1	2.400	2.800	0.094	0.110
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-323 Suggested Pad Layout



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

Ordering information

Device	Package	Shipping
SD103XWS	SOD-323	3000/Tape&Reel(7inches)