

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

SOD-323



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

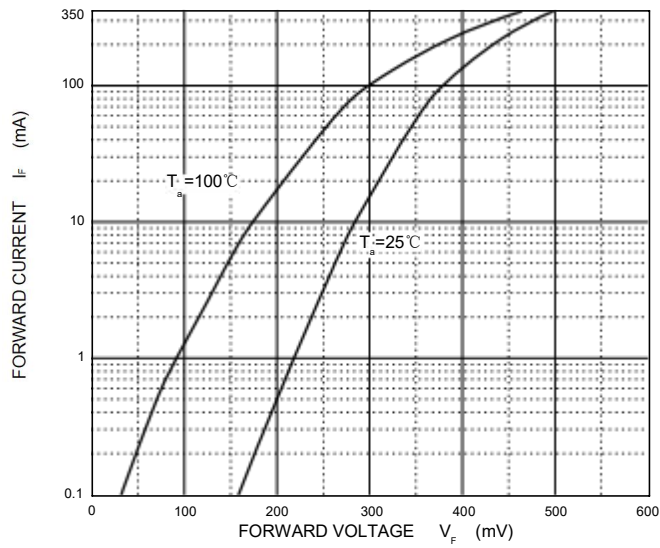
Parameter	Symbol	SD103AWS	SD103BWS	SD103CWS	Unit
Peak Repetitive Peak Reverse Voltage	V_{RRM}	40	30	20	V
Working Peak Reverse Voltage	V_{RWM}				
DC Blocking Voltage	V_R				
RMS Reverse Voltage	$V_{R(RMS)}$	28	21	14	V
Forward Continuous Current	I_{FM}	350			mA
Non-repetitive Peak Forward Surge Current @ $t=8.3ms$	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

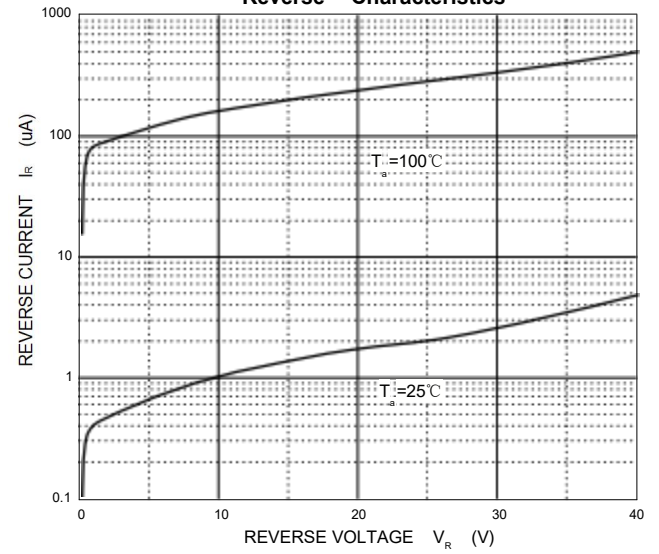
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Reverse breakdown voltage SD103AWS SD103BWS SD103CWS	$V_{(BR)}$	40 30 20			V	$I_R=100\mu A$ $I_R=100\mu A$ $I_R=100\mu A$
Forward voltage	V_F			0.37 0.60	V	$I_F=20mA$ $I_F=200mA$
Reverse current SD103AWS SD103BWS SD103CWS	I_{RM}			5.0	μA	$V_R=30V$ $V_R=20V$ $V_R=10V$
Capacitance between terminals	C_T			50	pF	$V_R=0V, f=1.0MHz$
Reverse recovery time	t_{rr}		10		ns	$I_F=I_R=200mA$ $I_{rr}=0.1I_R, R_L=100\Omega$

Typical Characteristics

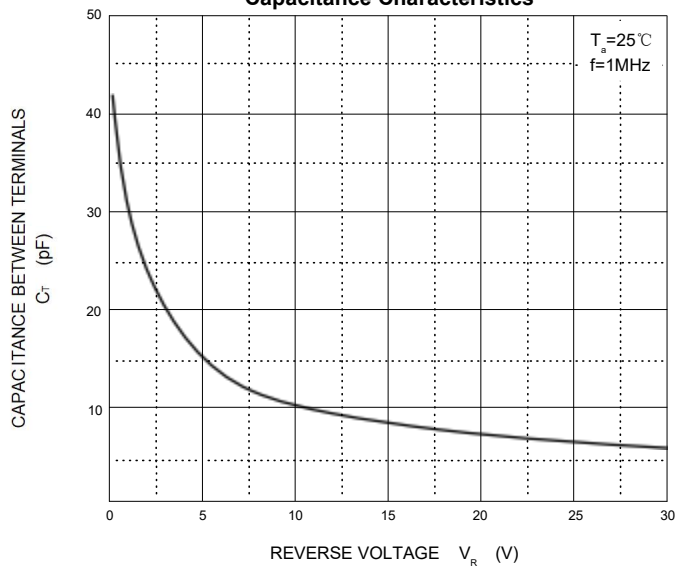
Forward Characteristics



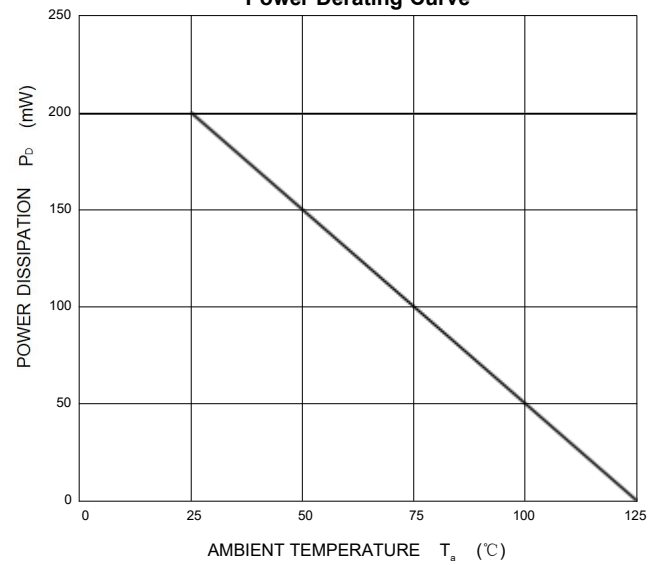
Reverse Characteristics

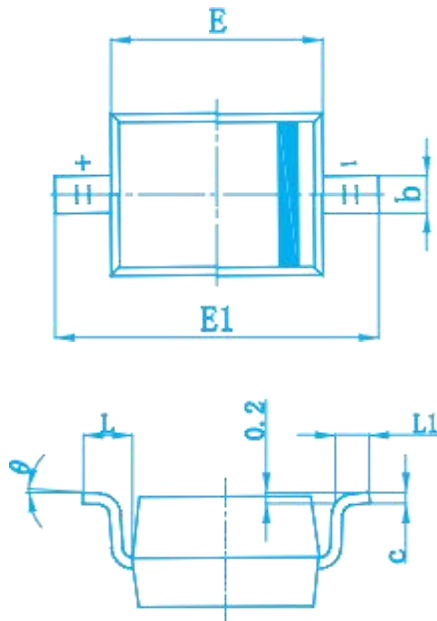


Capacitance Characteristics

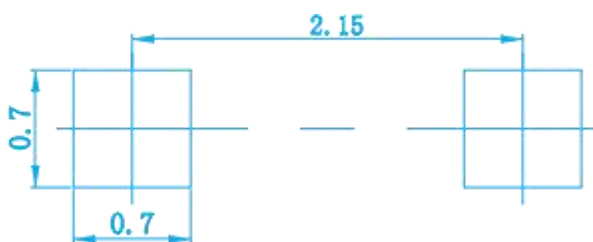


Power Derating Curve



SOD-323 Package Outline Dimensions


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
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	2.750	0.098	0.108
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: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.