

Features

- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance and Low Forward Voltage Drop
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 500°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SD103AWS	S4	40V	28V	40V
SD103BWS	S5	30V	21V	30V
SD103CWS	S6	20V	14V	20V

Electrical Characteristics @ 25°C Unless Otherwise Specified

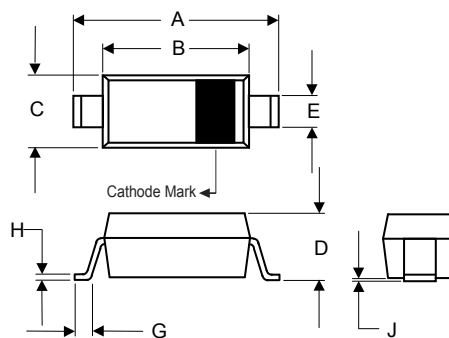
Forward Continuous Current(Note2)	$I_{F(AV)}$	350mA	
Peak Forward Surge Current	I_{FSM}	1500mA	$t \leq 1.0s$
Maximum Power Dissipation	P_d	200mW	Note 2
Maximum Instantaneous Forward Voltage	V_F	0.37V 0.60V	$I_{FM}=20mA$ $I_{FM}=200mA$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0 μ A	$V_R = 30V$ $V_R = 20V$ $V_R = 10V$
Typical Reverse Recovery Time	T_{rr}	10ns	$I_F = I_R = 200mA$ $I_{rr} = 0.1 \times I_R$ $R_L = 100\Omega$
Maximum Junction Capacitance	C_J	50pF	Measured at 1.0MHz, $V_R = 0.0V$

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Note: 2.Valid provided that electrodes are kept at ambient temperature

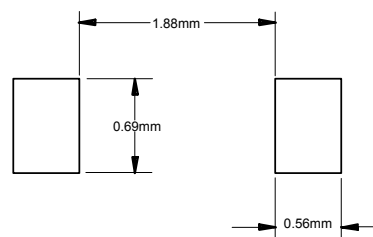
200mW Small Signal Schottky Diode 20 to 40 Volts

SOD-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.040	0.80	1.00	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	-----	0.006	-----	0.15	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

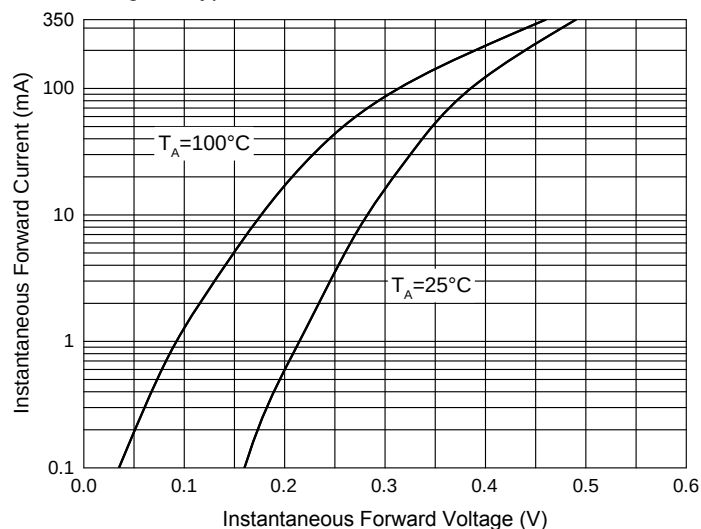


Fig. 2 - Typical Reverse Leakage Characteristics

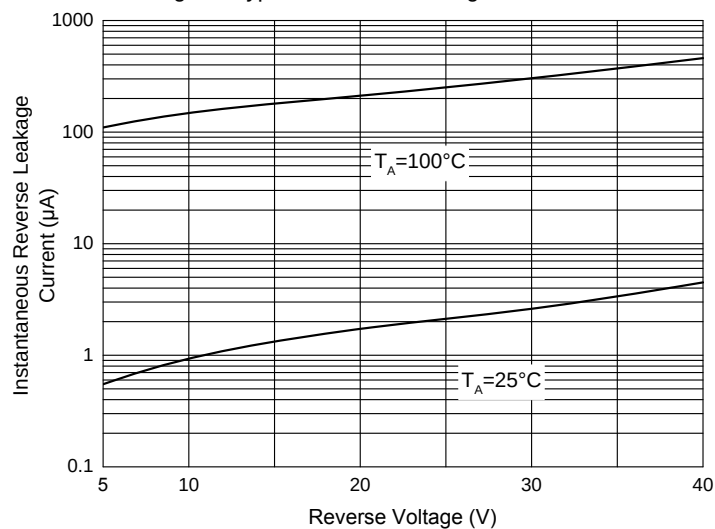


Fig. 3 - Power Derating Curve

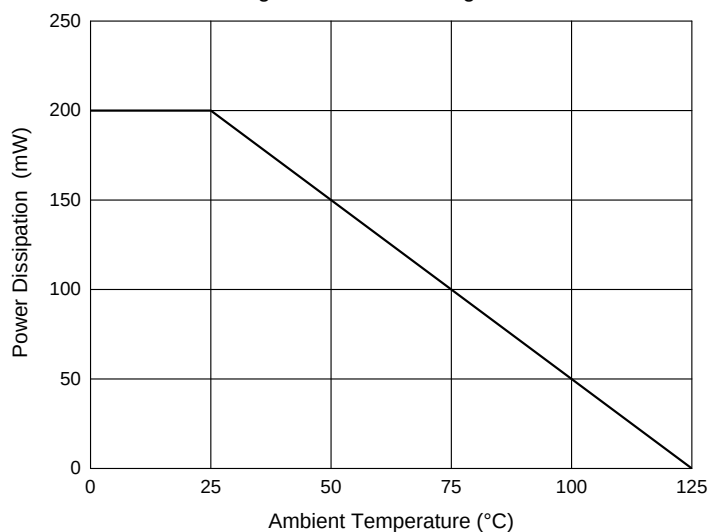
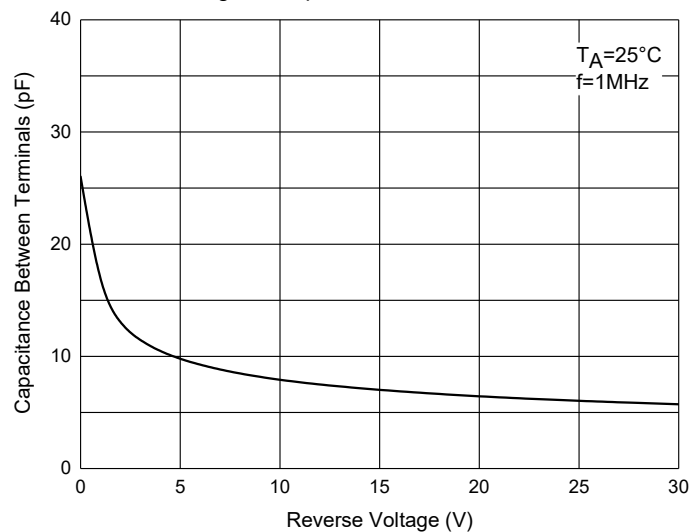


Fig. 4 - Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel
Part Number-13P	Tape&Reel: 10Kpcs/Reel

For packaging details, go to our website at https://www.mccsemi.com/pdf/productpackaging/SOD-323_Package_Rev_1.pdf

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