

Features

- Guard Ring Protection
- Low Forward Voltage Drop
- Low Power Loss For High Efficiency
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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
- Maximum Thermal Resistance: 250°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SD103AW	S4	40V	28V	40V
SD103BW	S5	30V	21V	30V
SD103CW	S6	20V	14V	20V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	350mA	Note 1
Peak Forward Surge Current	I_{FSM}	1.5A	$t \leq 1.0s$
Maximum Power Dissipation	P_d	400mW	Note 2
Maximum(Note 3) 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	5.0µA	$V_R = 30V$ $V_R = 20V$ $V_R = 10V$
Typical Reverse Recovery Time	t_{rr}	10ns	$I_F = I_R = 200mA$ $I_{rr} = 0.1 \times I_R$ $R_L = 100\Omega$
Typical Junction Capacitance	C_J	50pF	Measured at 1.0MHz, $V_R = 0.0V$

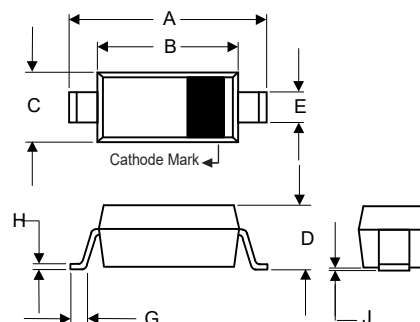
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

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

Note: 3. Pulse test: Pulse width 300 µsec, Duty cycle 2%

400mW Small Signal Schottky Diode 20 to 40 Volts

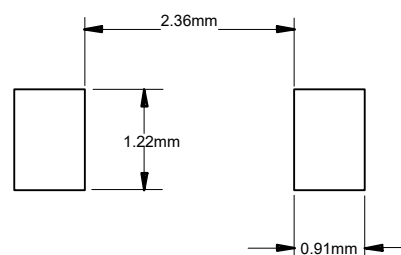
SOD-123



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.100	0.112	2.55	2.85	
C	0.055	0.071	1.40	1.80	
D	----	0.053	----	1.35	
E	0.018	0.026	0.45	0.65	
G	0.006	----	0.15	----	
H	----	0.010	----	0.25	
J	----	0.006	----	0.15	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

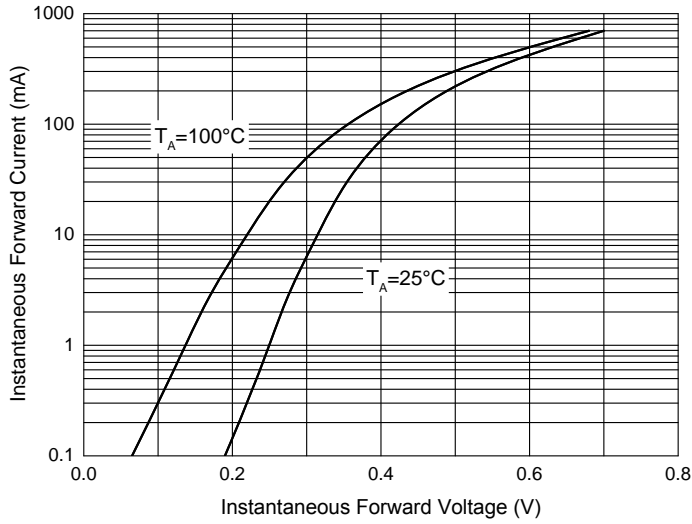


Fig. 2 - Typical Reverse Leakage Characteristics

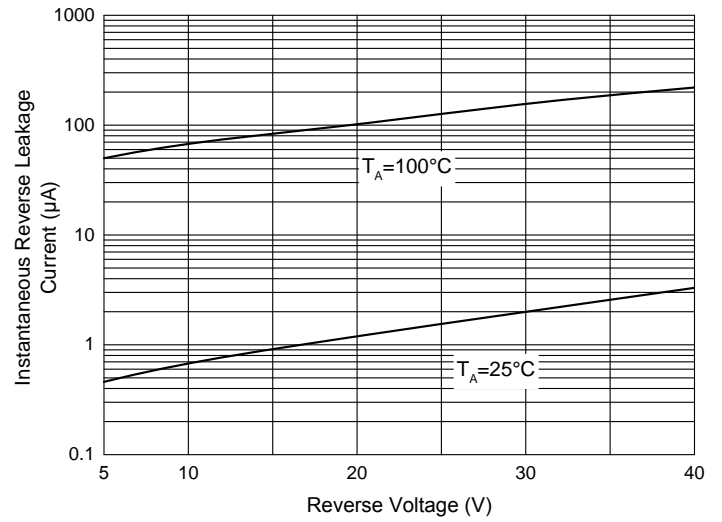
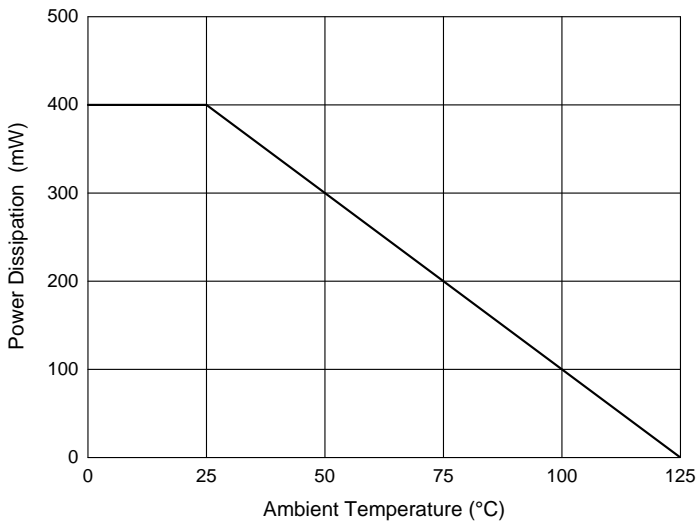


Fig. 3 - Power Derating Curve



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-123_Package_Rev_1.pdf

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