



Micro Commercial Components



Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

Features

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)
- Guard Ring Protection
- Low Forward Voltage Drop
- Low Power Loss For High Efficiency
- Device Marking Code: SD103AW: S4
SD103BW: S5
SD103CW: S6

Maximum Ratings

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 300°C/W Junction to Ambient

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SD103AW	40V	28V	40V
SD103BW	30V	21V	30V
SD103CW	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 1
Maximum (Note2) 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	$V_R = 30V$ (AW) $V_R = 20V$ (BW) $V_R = 10V$ (CW)
Typical Junction Capacitance	C_j	50pF	Measured at 1.0MHz, $V_R=0V$
Typical Reverse Recovery Time	t_{rr}	10ns	$I_F = I_R = 200mA$ $I_{rr}=0.1 \times I_R$ $R_L=100\Omega$

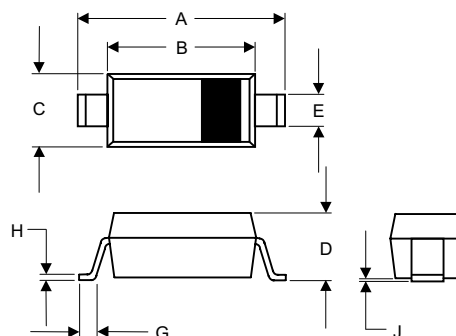
Note: 1.Valid provided that electrodes are kept at ambient Temperature

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

SD103AW THRU SD103CW

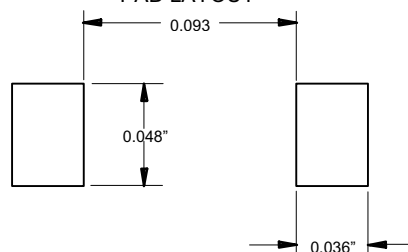
400mW Small Signal Schottky Diode 20 to 40 Volts

SOD-123



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	---	.053	---	1.35	
E	.012	.031	0.30	0.78	
G	.006	---	0.15	---	
H	---	.010	---	0.25	
J	---	.006	---	0.15	

SUGGESTED SOLDER PAD LAYOUT



SD103AW thru SD103CW



Micro Commercial Components

Figure 1
Typical Forward Characteristics

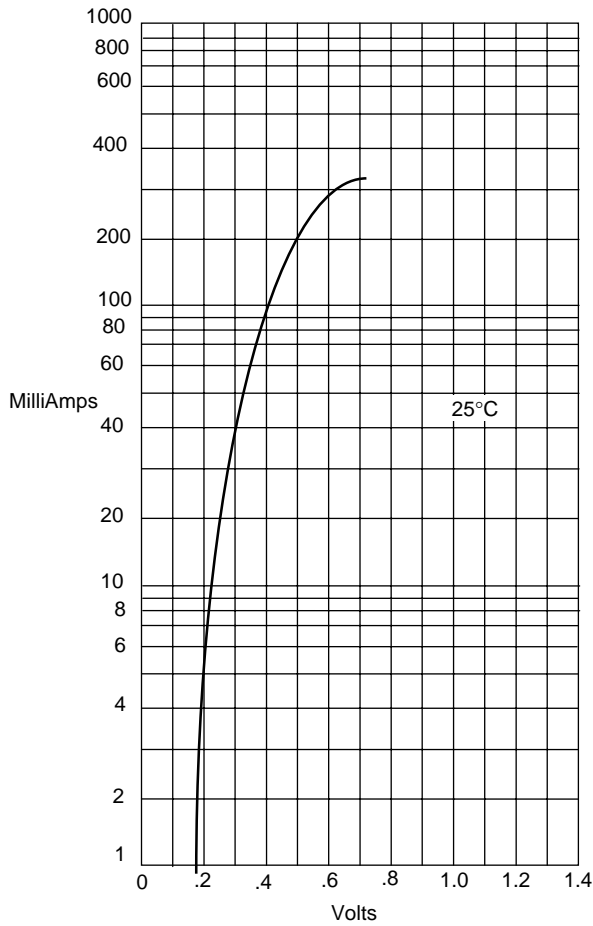


Figure 2
Typical Junction Capacitance

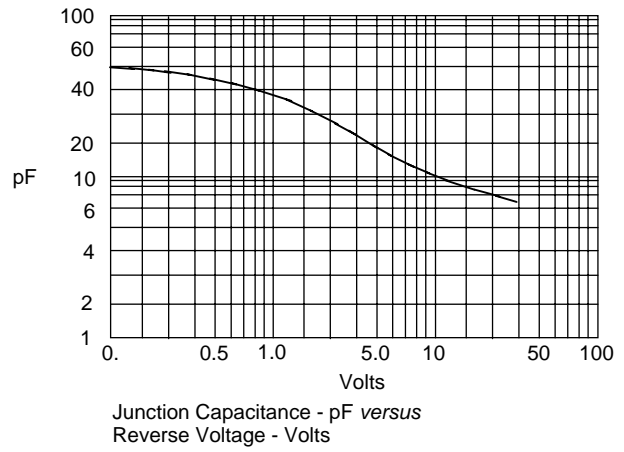
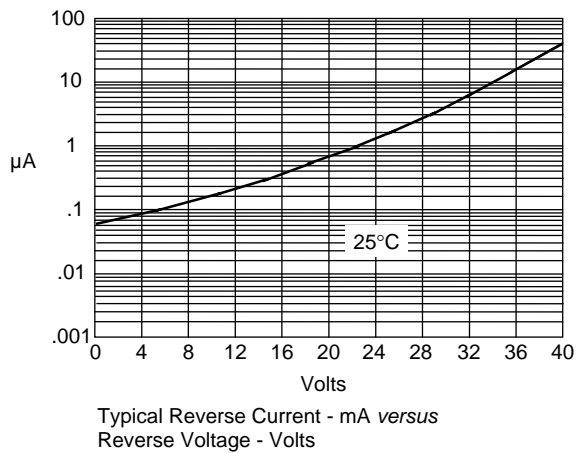


Figure 3
Typical Reverse Characteristics



Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.