



# THE DATASHEET OF SD103AW-TP





Micro Commercial Components



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

# SD103AW THRU SD103CW

## 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

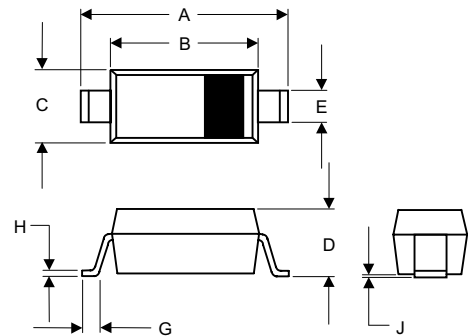
## Electrical Characteristics @ 25°C Unless Otherwise Specified

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%

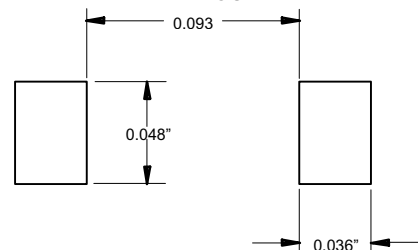
## 400mW Small Signal Schottky Diode 20 to 40 Volts

### 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

Figure 1  
Typical Forward Characteristics

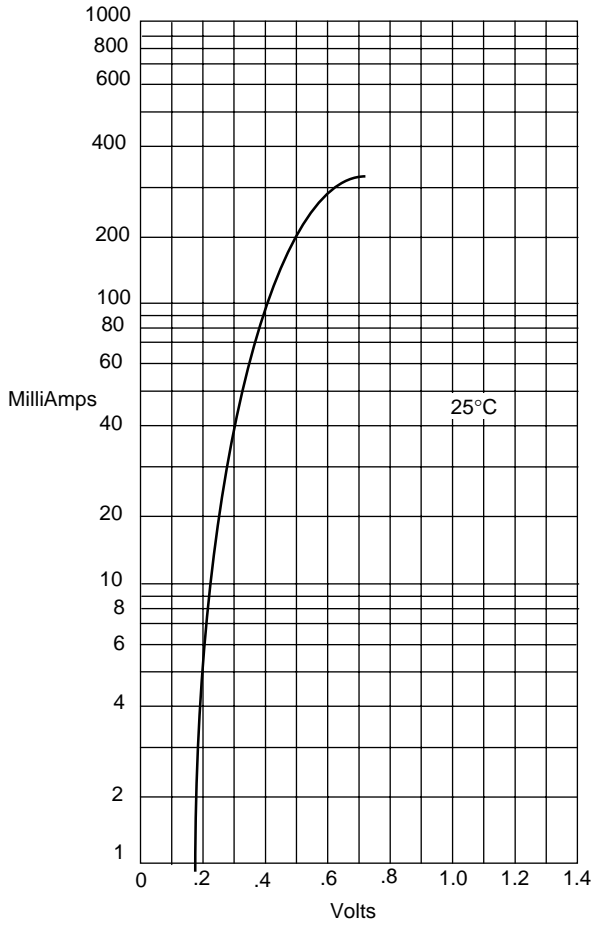


Figure 2  
Typical Junction Capacitance

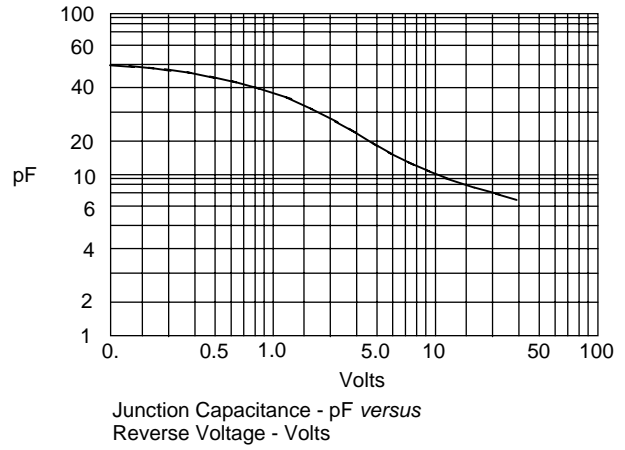
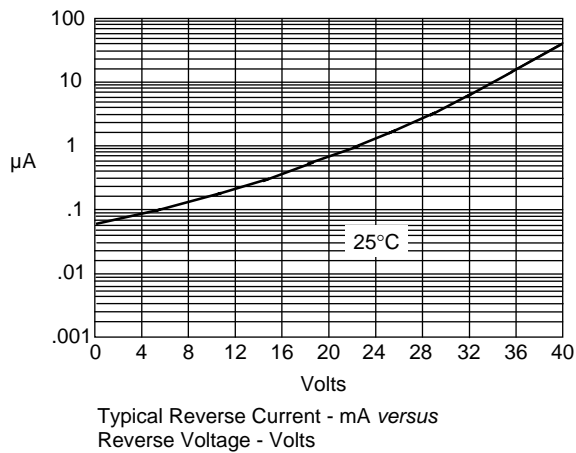


Figure 3  
Typical Reverse Characteristics





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### Ordering Information :

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

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

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