



SD101AW THRU SD101CW

Schottky Barrier Switching Diode



Voltage Range
40 to 60 Volts
400m Watts Power Dissipation

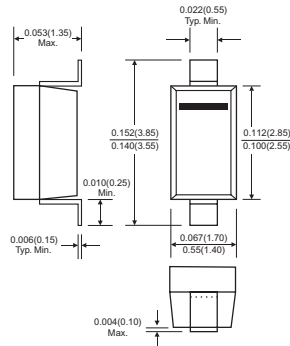
Features

- ✦ Low forward voltage drop
- ✦ Guard ring construction for transient protection
- ✦ Negligible reverse recovery time

Mechanical Data

- ✦ Case: SOD-123, plastic
- ✦ Polarity: Cathode band
- ✦ Terminals: Solderable per MIL-STD-202, Method 208
- ✦ Marking: Date Code and Type Code or Date Code only
 - Type Code: SD101AW S1
 - SD101BW S2
 - SD101CW S3
- ✦ Weight: 0.01 grams (approx.)

SOD-123



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	SD101AW	SD101BW	SD101CW	Units
Peak Repetitive Reverse Voltage	V _{RRM}				
Working Peak Reverse Voltage	V _{RWM}	60	50	40	V
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _R (RMS)	42	35	28	V
Forward Continuous Current (Note 1)	I _{FM}		15		mA
Non-repetitive Peak Forward Surge Current	I _{FSM}		50		mA
@ t ≤ 1.0s			2.0		A
@ t = 10uS					
Power Dissipation (Note 1)	P _d		400		mW
Thermal Resistance Junction to Ambient Air (Note 1)	R θ JA		300		°C /W
Operating and Storage Temperature Range	T _J , T _{STG}		-65 to + 125		°C

Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage (Note 2)	V(BR)			V
SD101AW IR=10uA		60	-	
SD101BW IR=10uA		50		
SD101CW IR=10uA		40		
Peak Reverse Current	I _R		200	nA
SD101AW VR=50V		-		
SD101BW VR=40V				
SD101CW VR=30V				
Forward Voltage Drop (Note 2)	V _F			V
SD101AW IF=1.0mA		-	0.41	
SD101BW IF=1.0mA			0.40	
SD101CW IF=1.0mA			0.39	
SD101AW IF=15mA			1.00	
SD101BW IF=15mA			0.95	
SD101CW IF=15mA			0.90	
Junction Capacitance	C _j			Pf
VR=0, f=1.0MHz		-	2.0	
SD101AW			2.1	
SD101BW			2.2	
SD101CW				
Reverse Recovery Time	t _{rr}		1.0	nS
IF=IR=5.0mA		-		
I _{rr} =0.1 x I _R , R _L =100Ω				

Notes: 1. Valid Provided that Terminals are Kept at Ambient Temperature.

2. Pulse Test: Pulse width = 300uS, Duty cycle ≤ 2%.

RATINGS AND CHARACTERISTIC CURVES (SD101AW - SD101CW)

FIG.1- TYPICAL FORWARD CHARACTERISTIC VARIATIONS FOR PRIMARY CONDUCTION

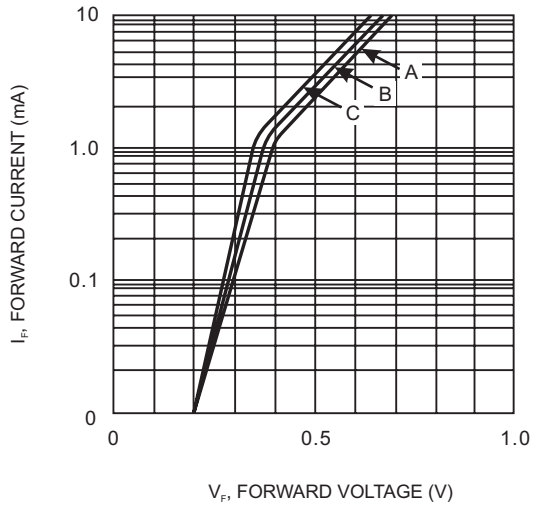


FIG.2- TYP. JUNCTION CAPACITANCE VS REVERSE VOLTAGE

