



# SD101AW - SD101CW

## 400mW Schottky Barrier Switching Diode

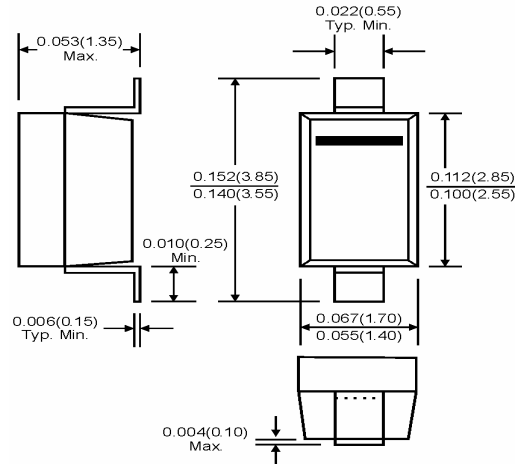
### SOD-123

### 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.)



### 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	VRRM	60	50	40	V
Working Peak Reverse Voltage	VRWM				
DC Blocking Voltage	VR				
RMS Reverse Voltage	VR(RMS)	42	35	28	V
Forward Continuous Current (Note 1)	IFM	15			mA
Non-repetitive Peak Forward Surge Current	IFSM	50			mA
@ t ≤ 1.0s					A
@ t = 10μs		2.0			
Power Dissipation (Note 1)	Pd	400			mW
Thermal Resistance Junction to Ambient Air (Note 1)	RθJA	300			°C/W
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 125			°C

#### Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage (Note 2)	V(BR)	60	-	V
SD101AW IR=10μA		50		
SD101BW IR=10μA		40		
SD101CW IR=10μA				
Peak Reverse Current	IR		200	nA
SD101AW VR=50V				
SD101BW VR=40V				
SD101CW VR=30V				
Forward Voltage Drop (Note 2)	VF		0.41	V
SD101AW IF=1.0mA			0.40	
SD101BW IF=1.0mA			0.39	
SD101CW IF=1.0mA			1.00	
SD101AW IF=15mA			0.95	
SD101BW IF=15mA			0.90	
SD101CW IF=15mA				
Junction Capacitance	Cj		2.0	pF
VR=0, f=1.0MHz			2.1	
SD101AW			2.2	
SD101BW				
SD101CW				
Reverse Recovery Time	trr	-	1.0	nS
IF=IR=5.0Ma				
Irr=0.1 x IR, RL=100Ω				

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

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

Version: A07

## RATINGS AND CHARACTERISTIC CURVES (SD101AW - SD101CW)

FIG.1- TYPICAL FORWARD CHARACTERISTIC VARIATIONS FOR PRIMARY CONDUCTION

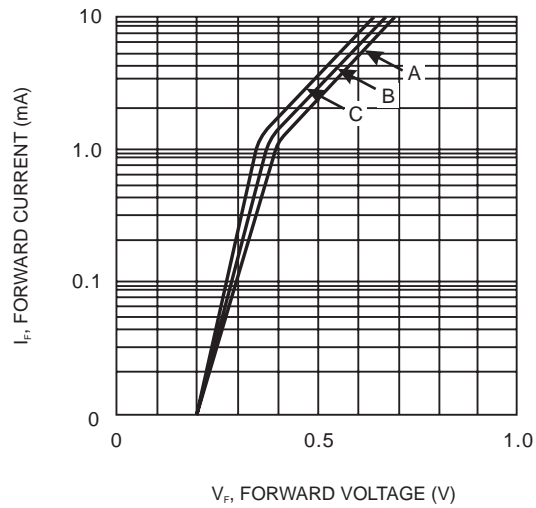
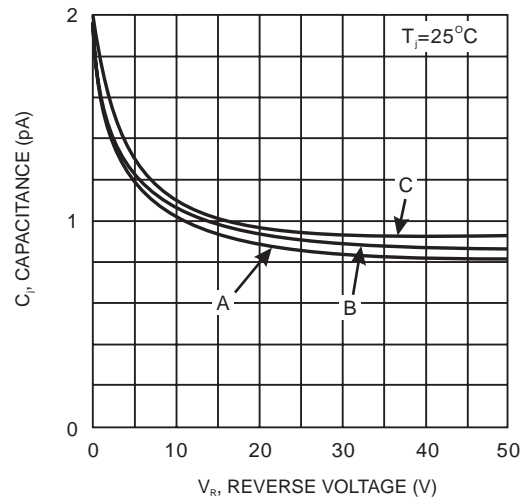


FIG.2- TYP. JUNCTION CAPACITANCE VS REVERSE VOLTAGE



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