

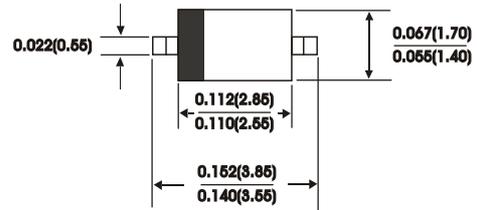


SMALL SIGNAL SCHOTTKY DIODES

SOD-123

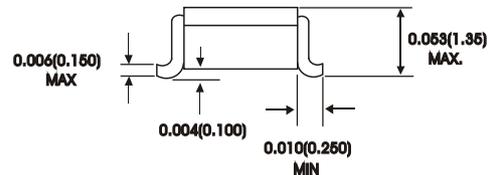
Features:

- *Low Forward Voltage
- *Very Small Conduction Losses
- *Schottky Barrier Diodes Encapsulated in a SOD-123 Package



Mechanical Data:

- *Polarity: Cathode Band
- *Leads: Solderable per MIL-STD-202 Method 208
- *Wight: 0.01grams(approx)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60 Hz resistive or inductive load.
For capacitive load. derate current by 20%.

Maximum Ratings (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	SD103AW	SD103BW	SD103CW	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	40	30	20	V
Working Peak Reverse Voltage	V _{RWM}				
DC Blocking Voltage	V _R				
RMS Reverse Voltage	V _{R(RMS)}	28	21	14	V
Average Rectified Output Current	I _{FAV}	350			mA
Non-Repetitive Peak Forward Surge Current @t≤1.0S	I _{FSM}	1.5			A
Power Dissipation ⁽¹⁾	P _D	400			mW
Typical thermal Resistance junction to Ambient Note ⁽¹⁾	R _{θJA}	300			°C/W
Operating & Storage Temperature Range	T _J T _{STG}	-55 to +125			°C



RATINGS AND CHARACTERISTIC CURVES

Electrical Characteristics (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (2) SD103AW SD103BW SD103CW	V _{(BR)R}	40 30 20	- - -	- - -	V
Forward Voltage Note(2) I _F =20mA I _F =200mA	V _F	- -	- -	0.37 0.60	V
Reverse Current Note(2) V _R =30V, SD103AW V _R =20V, SD103BW V _R =10V, SD103CW	I _R	-	-	5.0	μA
Junction Capacitance, f=1MHZ, V _R =0VDC	C _j		50		PF
Reverse Recovery Time I _F =I _R =200mA, I _{rr} =0.1*I _R , R _L =100Ω	t _{rr}		10		ns

Device Marking

Item	Marking	Equivalent Circuit diagram
SD103AW	S4	
SD103BW	S5	
SD103CW	S6	

Note: 1. Valid provided that leads are kept at ambient temperature.

2. Pulse Test : Pulse width = 300us, Duty Cycle ≤2%

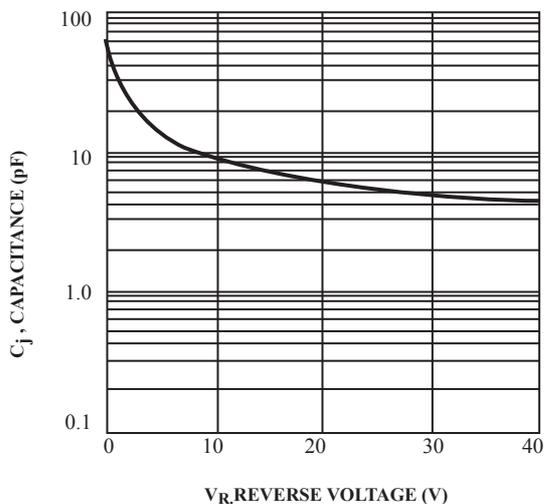


FIG. 1 Typ, Junction Capacitance vs. Reverse Voltage

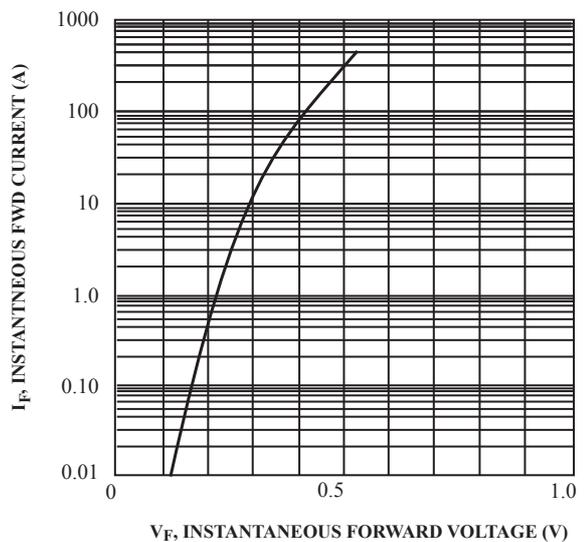


FIG. 2 Typical Forward Characteristics



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