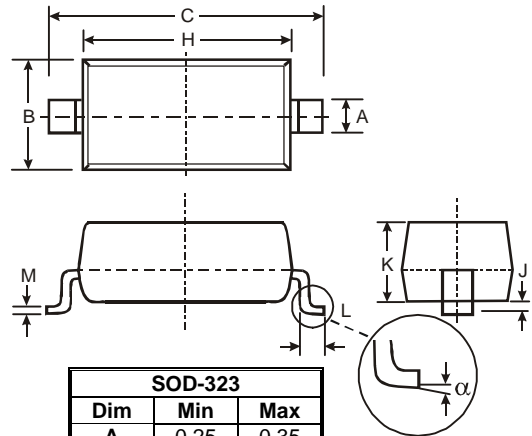


Features

- The SD103 series is a metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring
- This diode is also available in the Mini-MELF case with the type designations LL103A to LL103C, DO35 case with the type designations SD103A to SD103C and SOD123 case with type designations SD103AW-V to SD103CW-V
- The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing, and coupling diodes for fast switching and low logic level applications
- For general purpose applications
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



SOD-323		
Dim	Min	Max
A	0.25	0.35
B	1.20	1.40
C	2.30	2.70
H	1.60	1.80
J	0.00	0.10
K	1.0	1.1
L	0.20	0.40
M	0.10	0.15
α	0°	8°

All Dimensions in mm

Mechanical Data

- **Case:** SOD323 Plastic case
- **Weight:** approx. 4.3 mg
- **Packaging Codes/Options:**
GS18/10 k per 13" reel (8 mm tape), 10 k/box
GS08/3 k per 7" reel (8 mm tape), 15 k/box

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Test condition	Part	Symbol	Value	Unit		
Peak reverse voltage		SD103AWS-V	V _{RRM}	40	V		
		SD103BWS-V	V _{RRM}	30	V		
		SD103CWS-V	V _{RRM}	20	V		
Power dissipation			P _{tot}	200 ¹⁾	mW		
Single cycle surge	10 μs square wave		I _{FSM}	2	A		
Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Leakage current	V _R = 30 V	SD103AWS-V	I _R			5	μA
	V _R = 20 V	SD103BWS-V	I _R			5	μA
	V _R = 10 V	SD103CWS-V	I _R			5	μA
Forward voltage drop	I _F = 20 mA		V _F			370	mV
	I _F = 200 mA		V _F			600	mV
Diode capacitance	V _R = 0 V, f = 1 MHz		C _D		50		pF
Reverse recovery time	I _F = I _R = 50 mA to 200 mA, recover to 0.1 I _R		t _{rr}		10		ns

¹⁾ Valid provided that electrodes are kept at ambient temperature

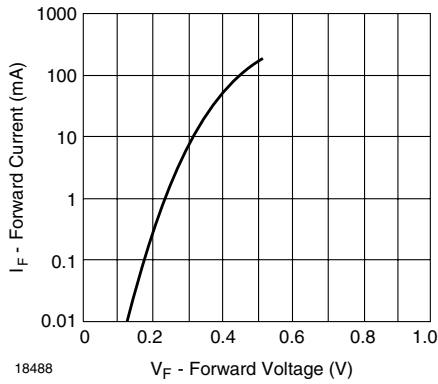


Figure 1. Typical Variation of Forward Current vs. Forward Voltage

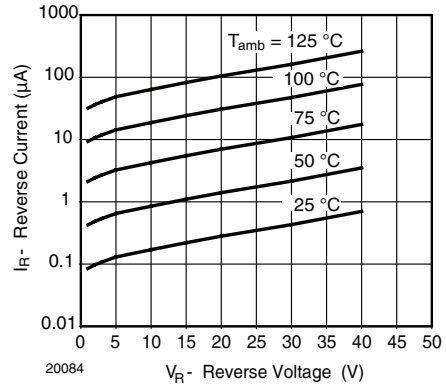


Figure 3. Typical Variation of Reverse Current at Various Temperatures

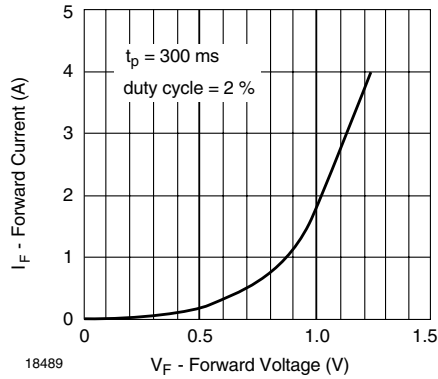


Figure 2. Typical High Current Forward Conduction Curve

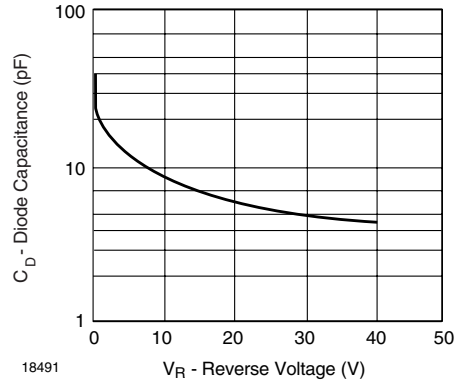


Figure 4. Diode Capacitance vs. Reverse Voltage

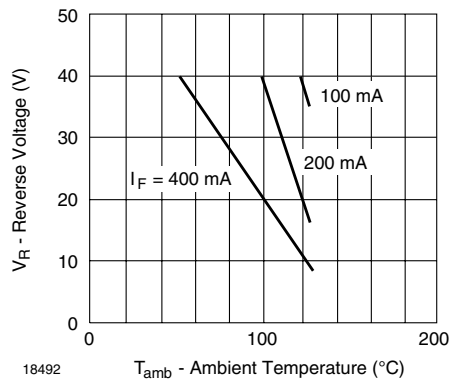


Figure 5. Blocking Voltage Deration vs. Temperature at Various Average Forward Currents