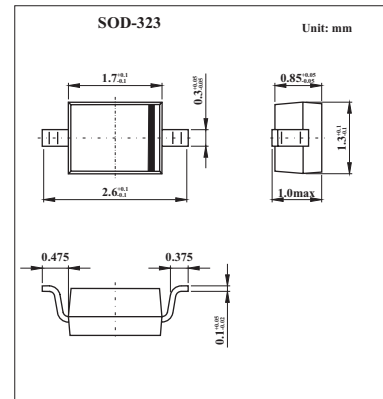


## SURFACE MOUNT SCHOTTKY BARRIER DIODE

## SD103CWS

## ■ Features

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Capacitance
- Ultra-small Surface Mount Package

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Working Peak Reverse Voltage	$V_{RWM}$	20	V
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Forward Continuous Current (Note 1)	$I_{FM}$	350	mA
Non-Repetitive Peak Forward Surge Current @ $t \leq 1.0\text{s}$	$I_{FSM}$	1.5	A
Power Dissipation (Note1)	$P_d$	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +125	$^\circ\text{C}$

Note:

1. Part mounted on FR-4 PC board with recommended pad layout.

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	$V_R = 10 \mu\text{A}$	20			V
Forward Voltage Drop (Note 2)	$V_{FM}$	$I_F = 20 \text{mA}$			0.37	V
		$I_F = 100 \text{mA}$			0.6	
Peak Reverse Leakage Current (Note 2)	$I_{RM}$	$V_R = 10 \text{V}$			5.0	$\mu\text{A}$
Total Capacitance	$C_T$	$V_R = 0 \text{V}, f = 1.0 \text{MHz}$		50		pF
Reverse Recovery Time	$t_{rr}$	$I_F = I_R = 200 \text{mA}$ $I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$		10		ns

Note:

2. Short duration test pulse used to minimize self-heating effect.

## ■ Marking

Marking	S6
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