

# SD103AWS...SD103CWS

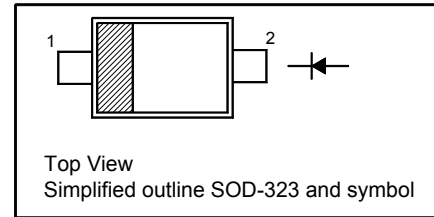
## Surface Mount Schottky Barrier Diodes

### Features

- Low forward voltage

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$	SD103AWS SD103BWS SD103CWS	40 30 20	V
Reverse Voltage		SD103AWS SD103BWS SD103CWS	40 30 20	V
Average Forward Rectified Current		$I_{F(AV)}$	350	mA
Non-Repetitive Peak Forward Surge Current at $t = 1$ s	$I_{FSM}$	2	A	
Power Dissipation	$P_{tot}$	200	mW	
Operating Junction and Storage Temperature Range	$T_j, T_{stg}$	- 65 to + 125	$^\circ\text{C}$	

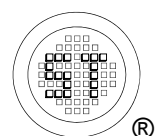
### Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance - Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	500	$^\circ\text{C/W}$

<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

### Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
Reverse Breakdown Voltage at $I_R = 10 \mu\text{A}$	$V_{(BR)R}$	SD103AWS SD103BWS SD103CWS	40 30 20	- - -	V	
Reverse Leakage Current at $V_R = 30$ V at $V_R = 20$ V at $V_R = 10$ V		$I_R$	SD103AWS SD103BWS SD103CWS	- - -	5 5 5	$\mu\text{A}$
Forward Voltage at $I_F = 20$ mA at $I_F = 200$ mA			$V_F$	- -	- -	0.37 0.6
Total Capacitance at $V_R = 0$ V, $f = 1$ MHz	$C_T$			-	20	-
Reverse Recovery Time at $I_F = I_R = 200$ mA, $I_{tr} = 0.1 I_R$ , $R_L = 100 \Omega$	$t_{rr}$	-	10	-	ns	



## Electrical Characteristic Curves

Fig 1. Average Current Derating Curve

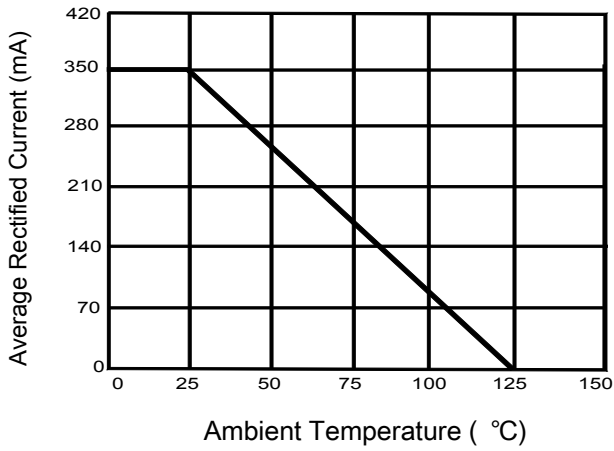


Fig 2. Forward Characteristic Curve

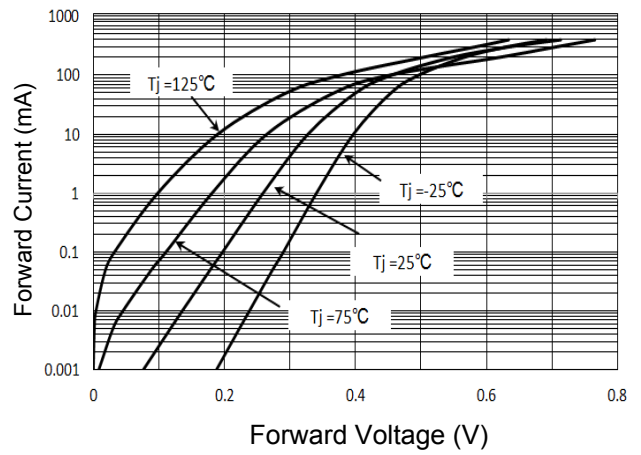


Fig 3. Reverse Characteristic Curve

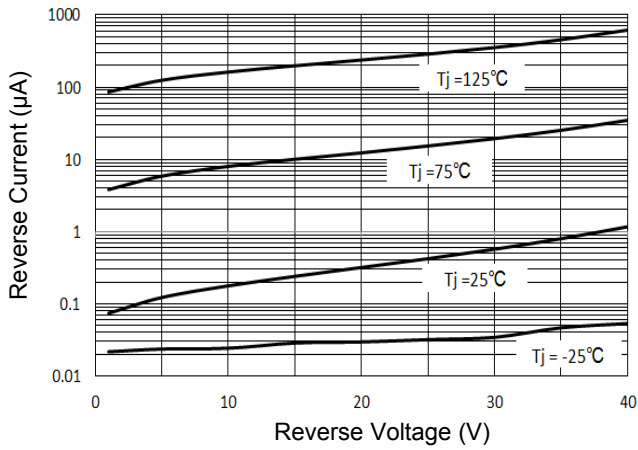
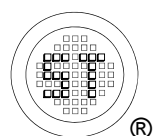
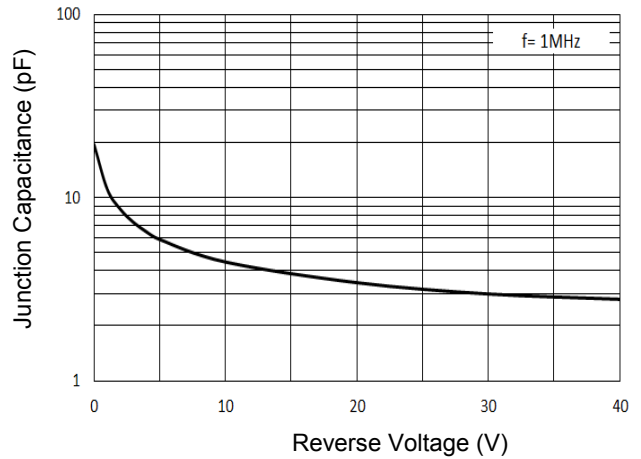


Fig 4. Junction Capacitance

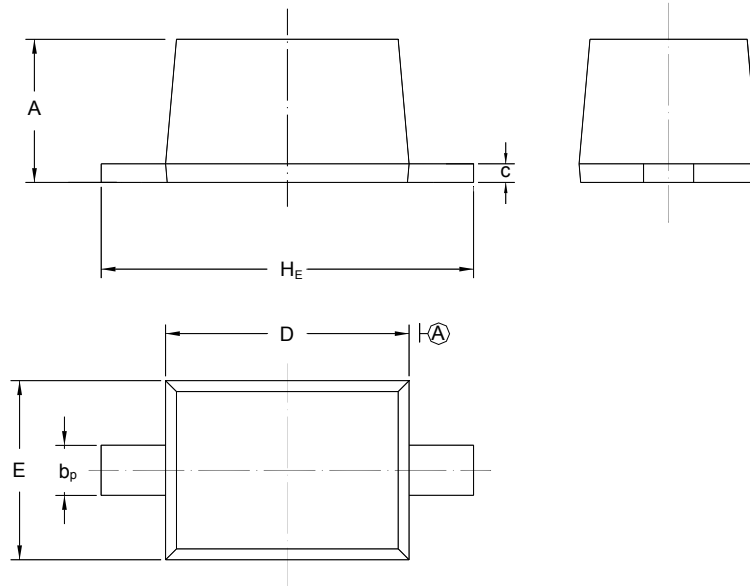


# SD103AWS...SD103CWS

## PACKAGE OUTLINE

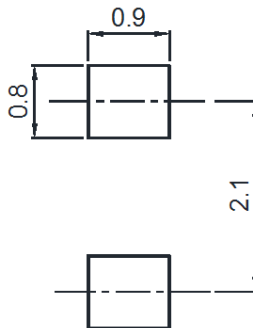
Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

" S4 " = Part No.

" III " = Cathode line

Font type: Arial

