



SEMICONDUCTOR

# SD103AWS THRU SD103CWS

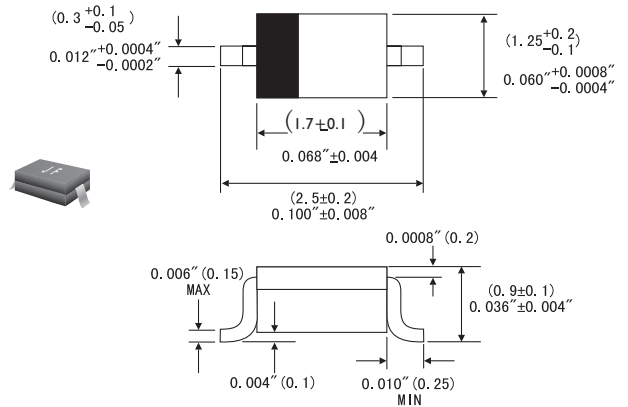
SMALL SIGNAL SCHOTTKY DIODES

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## FEATURES

- For general purpose applications
- The SD103AWS to SD103CWS series is a Metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring. 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. Other applications are click suppressions, efficient full wave bridges in telephone subsets, and blocking diodes in rechargeable low voltage battery systems.
- These diodes are also available in the Mini-MELF case with the type designation LL103A to LL103C, in the DO-35 case with type designation SD103A to SD103C and in the SOD-123 case with type designation SD103AW to SW103CW

## SOD-323



Dimensions in inches and (millimeters)

## MECHANICAL DATA

- Case: SOD-323 plastic case
- Weight: Approx. 0.004 gram

## ABSOLUTE RATINGS(LIMITING VALUES)

		Symbols	Value	Units
Peak Reverse Voltage	SD103AWS	V <sub>RRM</sub>	40	V
	SD103BWS	V <sub>RRM</sub>	30	V
	SD103CWS	V <sub>RRM</sub>	20	V
Power Dissipation (infinite Heat Sink)		P <sub>tot</sub>	400 <sup>1)</sup>	mW
Maximum Single cycle surge 60Hz sine wave		I <sub>FSM</sub>	15	A
Junction temperature		T <sub>J</sub>	125	°C
Storage Temperature Range		T <sub>STG</sub>	-55 to +150	°C

1) Valid provided that electrodes are kept at ambient temperature

## ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

	Symbols	Min.	Typ.	Max.	Units
Leakage current at V <sub>R</sub> =30V V <sub>R</sub> =20V V <sub>R</sub> =10V	SD103AWS	I <sub>R</sub>		5	μA
	SD103BWS	I <sub>R</sub>		5	μA
	SD103CWS	I <sub>R</sub>		5	μA
Forward voltage drop at I <sub>F</sub> =20mA I <sub>F</sub> =200mA	V <sub>F</sub>			0.37	V
	V <sub>F</sub>			0.6	V
Junction Capacitance at V <sub>R</sub> =0V, f=1MHz	C <sub>J</sub>		50		pF
Reverse Recovery time at I <sub>F</sub> =I <sub>R</sub> =50mA, recover to 200mA recover to 0.1 I <sub>R</sub>	t <sub>rr</sub>		10		ns
Thermal resistance, junction to Ambient	R <sub>θJA</sub>			650 <sup>1)</sup>	°C/W

1) Valid provided that electrodes are kept at ambient temperature(SOD-323)