



SEMICONDUCTOR

# SD103AW THRU SD103CW

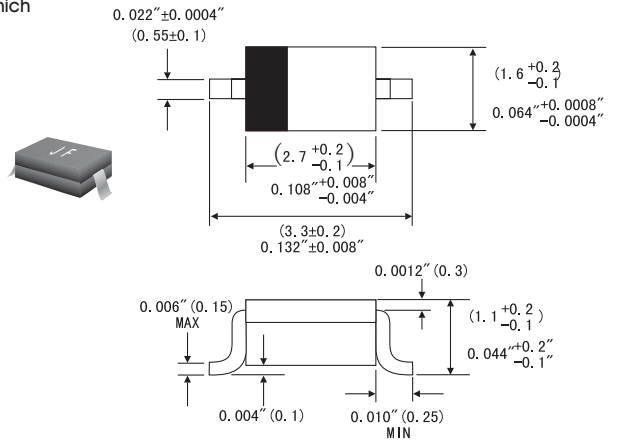
## SMALL SIGNAL SCHOTTKY DIODES

SMALL SIGNAL SCHOTTKY DIODES

### FEATURES

- For general purpose applications
- The SD103AW to SD103CW 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 thru LL103C ,in the DO-35 case with type designation SD103A to SD103C and in the SOD-323 case with type designation SD103AWS to SW103CWS

### SOD-123



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: SOD-123 plastic case
- Weight: Approx. 0.01 gram

### ABSOLUTE RATINGS(LIMITING VALUES)

		Symbols	Value	Units
Peak Reverse Voltage	SD103AW	$V_{RRM}$	40	V
	SD103BW	$V_{RRM}$	30	V
	SD103CW	$V_{RRM}$	20	V
Power Dissipation (infinite Heat Sink)		$P_{tot}$	400 <sup>1)</sup>	mW
Maximum Single cycle surge 60Hz sine wave		$I_{FSM}$	15	A
Junction temperature		$T_J$	125	°C
Storage Temperature Range		$T_{STG}$	-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.	Unis
Leakage current at $V_R=30V$ $V_R=20V$ $V_R=10V$	SD103AW	$I_R$			5	$\mu A$
	SD103BW	$I_R$			5	$\mu A$
	SD103CW	$I_R$			5	$\mu A$
Forward voltage drop at $I_f=20mA$ $I_f=200mA$		$V_F$			0.37	V
		$V_F$			0.6	V
Junction Capacitance at $V_R=0V, f=1MHz$		$C_J$		50		pF
Reverse Recovery time at $I_f=50mA$ , recover to 200mA recover to 0.1 $I_R$		$t_{rr}$		10		ns
Thermal resistance, junction to Ambient		$R_{\theta JA}$			300 <sup>1)</sup>	K/W

1) Valid provided that electrodes are kept at ambient temperature(SOD-123)