



SEMICONDUCTOR

# SD104AW THRU SD104CW

## SMALL SIGNAL SCHOTTKY DIODES

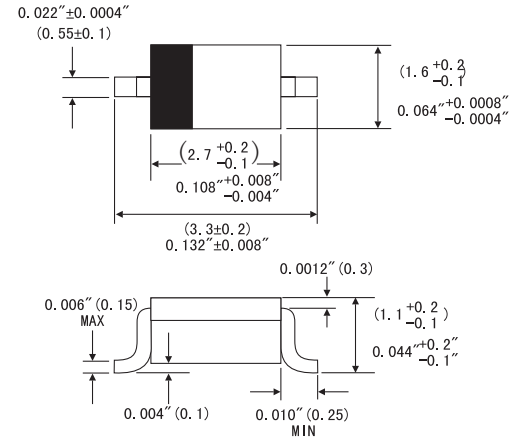
SMALL SIGNAL  
SCHOTTKY DIODES

### FEATURES

- Low turn-onvoltage
- Low capacitance
- Ultrafast switching
- Microminiature plastic package  
Single, double, and ring balanced mixer in narrow-Band receivers up to 1GHz
- Detectors and fast switching up to 1GHz  
Phase detectors  
Suitable for RADIOS, TV, CTV, and hyper band tuners  
Capacitance and Vf matching is available



### 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	SD104AW	V <sub>RRM</sub>	20	V
	SD104BW	V <sub>RRM</sub>	15	V
	SD104CW	V <sub>RRM</sub>	10	V
Power Dissipation (infinite Heat Sink)		P <sub>tot</sub>	150 <sup>1)</sup>	mW
Forward current		I <sub>F</sub>	30	mA
Forward voltage at I <sub>F</sub> =10mA		V <sub>F</sub>	Max.600	mV
Diode capacitance		C <sub>J</sub>	Max.1.0	pF
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



S E M I C O N D U C T O R

# SD104AW THRU SD104CW

## SMALL SIGNAL SCHOTTKY DIODES

SMALL SIGNAL  
SCHOTTKY DIODES

### ELECTRICAL CHARACTERISTICS

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

		Symbols	Min.	Typ.	Max.	Units
Reverse breakdown voltage at $I_R=10\mu A$	SD104AW	$V_R$	30			V
	SD104BW	$V_R$	15			V
	SD104CW	$V_R$	10			V
Leakage current at $V_R=15V$ $V_R=10V$ $V_R=5V$	SD104AW	$I_R$			500	nA
	SD104BW	$I_R$			500	nA
	SD104CW	$I_R$			500	nA
Forward voltage drop at $I_F=0.1mA$  $I_F=1.0mA$  $I_F=10mA$	SD104AW	$V_F$			0.350	V
	SD104BW	$V_F$			0.325	V
	SD104CW	$V_F$			0.310	V
	SD104AW	$V_F$			0.450	V
	SD104BW	$V_F$			0.400	V
	SD104CW	$V_F$			0.600	V
	SD104AW	$V_F$			0.580	V
	SD104BW	$V_F$			0.565	V
	SD104CW	$V_F$			0.565	V
Junction Capacitance at $V_R=0V, f=1MHz$	SD104AW	$C_J$			1.0	pF
	SD104BW	$C_J$			0.9	pF
	SD104CW	$C_J$			0.8	pF
Thermal resistance, junction to Ambient		$R_{\theta JA}$			650 <sup>1)</sup>	K/W
1) Valid provided that electrodes are kept at ambient temperature						