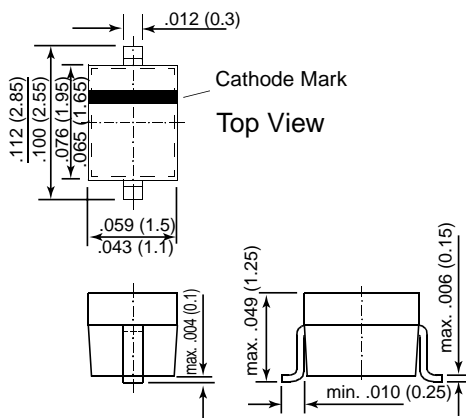


# SD104AWS THRU SD104CWS

## SCHOTTKY DIODES

### SOD-323



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Low turn-on voltage
- ◆ Low capacitance
- ◆ Ultrafast switching
- ◆ Microminiature plastic package
- ◆ Single, double, and ring balanced mixer in narrow-band receivers up to 1 GHz
- ◆ Detectors and fast switching up to 1 GHz
- ◆ Phase detectors
- ◆ Suitable for radios, TV, CTV, and hyper band tuners



### MECHANICAL DATA

**Case:** SOD-323 Plastic Package

**Weight:** approx. 0.004g

### MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	SD104AWS	$V_R$	20	Volts
	SD104BWS	$V_R$	15	Volts
	SD104CWS	$V_R$	10	Volts
Forward Current		$I_F$	30	mA
Power Dissipation $T_C = 25^\circ\text{C}$		$P_{tot}$	150 (NOTE 1)	mW
Junction Temperature		$T_j$	125	$^\circ\text{C}$
Storage Temperature Range		$T_s$	-55 to + 150	$^\circ\text{C}$
Thermal Resistance Junction to Ambient Air		$R_{\theta JA}$	650 (NOTE 1)	K/W

#### NOTES:

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

# SD104AWS THRU SD104CWS

## ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		<i>SYMBOL</i>	<i>MIN.</i>	<i>TYP.</i>	<i>MAX.</i>	<i>UNIT</i>
Reverse Breakdown Voltage at $I_R = 10 \mu\text{A}$	SD104AWS	$V_R$	20	-	-	Volts
	SD104BWS	$V_R$	15	-	-	Volts
	SD104CWS	$V_R$	10	-	-	Volts
Leakage Current at $V_R = 15 \text{ V}$ at $V_R = 10 \text{ V}$ at $V_R = 5 \text{ V}$	SD104AWS	$I_R$	-	-	500	nA
	SD104BWS	$I_R$	-	-	500	nA
	SD104CWS	$I_R$	-	-	500	nA
Forward Voltage at $I_F = 0.1 \text{ mA}$  at $I_F = 1.0 \text{ mA}$  at $I_F = 10 \text{ mA}$	SD104AWS	$V_F$	-	-	350	mV
	SD104BWS	$V_F$	-	-	325	mV
	SD104CWS	$V_F$	-	-	310	mV
	SD104AWS	$V_F$	-	-	450	mV
	SD104BWS	$V_F$	-	-	425	mV
	SD104CWS	$V_F$	-	-	400	mV
	SD104AWS	$V_F$	-	-	600	mV
	SD104BWS	$V_F$	-	-	580	mV
	SD104CWS	$V_F$	-	-	565	mV
Diodes Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	SD104AWS	$C_D$	-	-	0.8	pF
	SD104BWS	$C_D$	-	-	0.9	pF
	SD104CWS	$C_D$	-	-	1.0	pF

### NOTES:

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