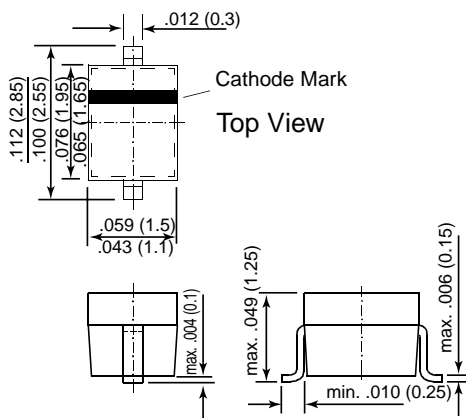


SD104AWS THRU SD104CWS

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 $I_R = 10 \mu A$	SD104AWS	V_R	20	-	-	Volts
	SD104BWS	V_R	15	-	-	Volts
	SD104CWS	V_R	10	-	-	Volts
Leakage Current at $V_R = 15 V$ at $V_R = 10 V$ at $V_R = 5 V$	SD104AWS	I_R	-	-	500	nA
	SD104BWS	I_R	-	-	500	nA
	SD104CWS	I_R	-	-	500	nA
Forward Voltage at $I_F = 0.1 mA$ at $I_F = 1.0 mA$ at $I_F = 10 mA$	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 $V_R = 0 V$, $f = 1 MHz$	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