



SEMICONDUCTOR

SD104AW THRU SD104CW

SMALL SIGNAL SCHOTTKY DIODES

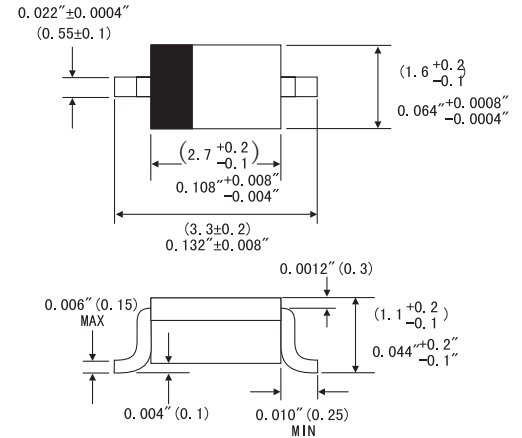
SMALL SIGNAL
SCHOTTKY DIODES

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 _{RRM}	20	V
	SD104BW	V _{RRM}	15	V
	SD104CW	V _{RRM}	10	V
Power Dissipation (infinite Heat Sink)		P _{tot}	150 ¹⁾	mW
Forward current		I _F	30	mA
Forward voltage at I _F =10mA		V _F	Max.600	mV
Diode capacitance		C _J	Max.1.0	pF
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



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

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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 ¹⁾	K/W
1) Valid provided that electrodes are kept at ambient temperature						