



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

SD104AW THRU SD104CW

SMALL SIGNAL SCHOTTKY DIODES

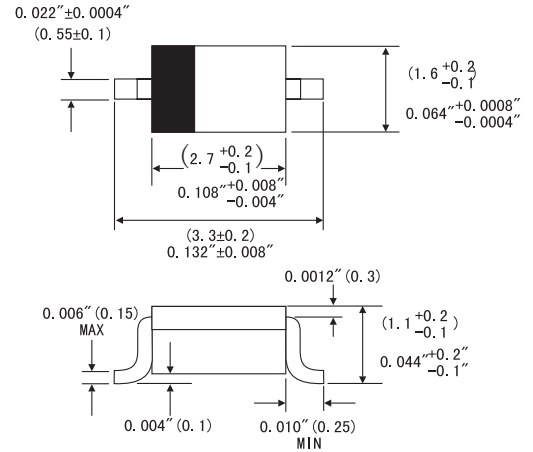
SMALL SIGNAL SCHOTTKY DIODES

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				



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ELECTRICAL CHARACTERISTICS

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

		Symbols	Min.	Typ.	Max.	Unis
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