®

SEMICONDUCTOR

SMALL SIGNAL SCHOTTKY DIODES

FEATURES

· For general purpose applications

· The SD10AW to SD101CW series is a Metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring. The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing, and coupling diodes for fast switching and low logic level applications

· These diodes are also available in the Mini-MELF case with type designation LL101A to LL101C ,in the DO-35 case with type designation SD101A to SD101C and in the SOD-123 case with type designation SD101AW to SW101CW

MECHANICAL DATA

· *Case*: SOD-323 plastic case

· *Weight*: Approx. 0.0040 gram
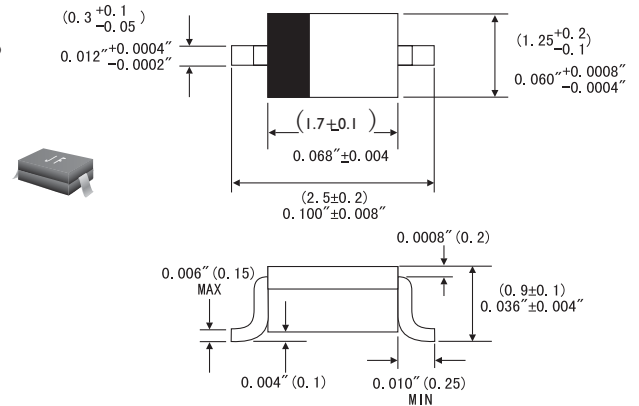
SOD-323

Dimensions in inches and (millimeters)

ABSOLUTE RATINGS(LIMITING VALUES)

		Symbols	Value	Units
Peak Reverse Voltage	SD101AWS SD101BWS SD101CWS	V_{RRM} V_{RRM} V_{RRM}	60 50 40	V V
Power Dissipation (infinite Heat Sink)		P_{tot}	400 [1]	mW
Maximum Single cycle surge 10μs square wave		I_{FSM}	2.0	A
Junction temperature		T_J	125	℃
Storage Temperature Range		T_{STG}	-55 to+150	℃

1) Valid provided that electrodes are kept at ambient temperature

ELECTRICAL CHARACTERISTICS

(Ratings at 25℃ ambient temperature unless otherwise specified)

		Symbols	Min.	Typ.	Max.	Unis
Reverse breakdown voltage at I_R=10μA	SD101AWS SD101BWS SD101CWS	V_R V_R V_R	60 50 40			V V V
Leakage current at V_R=50V V_R=40V V_R=30V	SD101AWS SD101BWS SD101CWS	I_R I_R I_R			200 200 200	nA nA nA
Forward voltage drop at I_F=1mA I_F=15mA	SD101AWS SD101BWS SD101CWS SD101AWS SD101BWS SD101CWS	V_F V_F V_F V_F V_F V_F			0.41 0.4 0.39 1 0.95 0.9	V V V V V V
Junction Capacitance at V_R=0V ,f=1MHz	SD101AWS SD101BWS SD101CWS	C_J C_J C_J			2.0 2.1 2.2	pF pF pF
Reverse Recovery time at I_F=I_R=5mA,recover to 0.1 I_R		t_{rr}			1	ns
Thermal resistance,junction to Ambient		$R_{\theta JA}$			650 [1]	℃/W

1) Valid provided that electrodes are kept at ambient temperature