RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

SD103BW

SMALL SIGNAL DIODE

VOLTAGE RANGE 30 Volts

FEATURES

* Low Forward Voltage Drop
* Guard Ring Construction for Transient Protection
* Negligible Reverse Recovery Time
* Low Reverse Capacitance

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-O rate flame retardant
* Lead: MIL-STD-202E method 208C guaranteed
* Mounting position: Any
* Weight: 0.01 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

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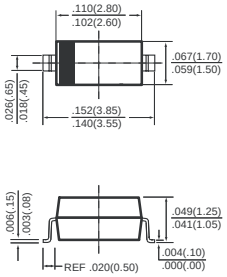

Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ T_A=25 °C unless otherwise noted)

RATINGS	SYMBOL	SD103BW	UNITS
Reverse Breakdown Voltage @I_R=10μA	$V_{(BR)R}$	30	Volts
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak reverse Voltage Maximum DC Blocking Voltage	V_{RRM} V_{RWM} V_R	30	Volts
Maximum RMS Voltage	$V_{R(RMS)}$	21	Volts
Maximum Forward Comtinuous Current	I_{FM}	350	mAmps
Repetitive Peak Forward Current @t<1.0S	I_{FRM}	1.5	Amps
Typical Reverse Recovery Time(I_F=I_R=200mA,I_{rr}=0.1X_{IR},R_L=100Ω)	Trr	10	nS
Typical Junction Capacitance(V_R=0V,f=1.0MHz)	CT	50	pF
Maximum Power Dissipation	PD	400	mW
Typical Thermal Resistance	$R_{\theta JA}$	300	°C/W
Operating and Storage Temperature Range	T_{STG}	-65 to + 125	°C

ELECTRICAL CHARACTERISTICS (@T_A=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	SD103BW	UNITS
Maximum Instantaneous Forward Voltage	@I_F=20mA @I_F=200mA	V_F	0.37 0.60	Volts
Maximum Instantaneous Reverse Current	@V_R=20V	I_R	5.0	μAmps

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RATING AND CHARACTERISTICS CURVES (SD103BW)

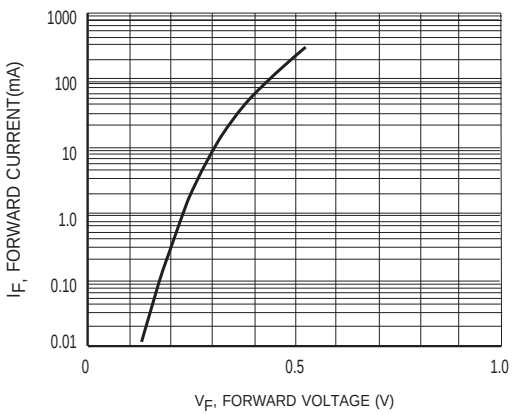

Figure1 Typical Forward Characteristics

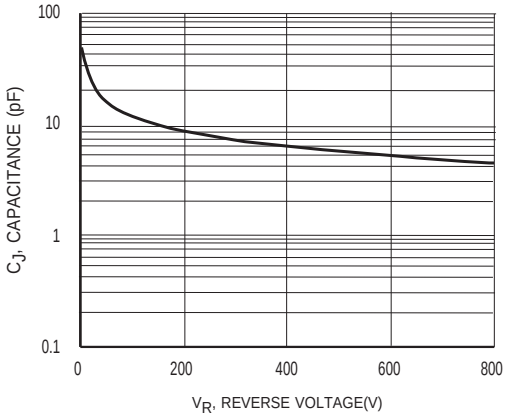

Figure2 Typical Junction Capactitance vs Reverse Voltage

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