RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

SD101BW

SMALL SIGNAL DIODE

VOLTAGE RANGE 50 Volts

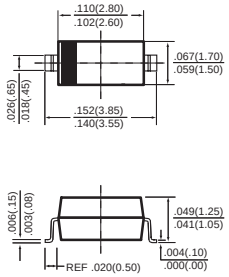
FEATURES

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

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

SOD-123



Dimensions in inches and (millimeters)

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%.

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

RATINGS		SYMBOL	SD101BW	UNITS
Maximum Repetitive Peak Reverse Voltage Maximum Working Peak reverse Voltage Maximum DC Blocking Voltage		V_{RRM} V_{RWM} V_R	50	Volts
Maximum RMS Voltage		V_{RMS}	35	Volts
Maximum Reverse Breakdown Voltage(IR=10μA)		$V_{(BR)R}$	50	Volts
Forward Continuous Current		I_{FM}	15	mAmps
Non-Repetitive Peak Forward Surge Current	@t<1.0s @t=10μs	I_{FSM}	50 2.0	mAmps Amps
Typical Reverse Recovery Time(I_F=I_R=5mA,I_{rr}=0.1XI_R,R_L=100Ω)		T_{rr}	1.0	nS
Typical Junction Capacitance(V_R=0V,f=1MHz)		C_T	2.1	pF
Maximum Power Dissipation		P_D	400	mW
Typical Thermal Resistance		$R_{\Theta JA}$	300	°C/W
Operating and Storage Temperature Range		T_J,T_{STG}	-65 to + 125	°C

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

CHARACTERISTICS		SYMBOL	SD101BW	UNITS
Maximum Instantaneous Forward Voltage	@I_F=1.0mA @I_F=15mA	V_F	0.40 0.95	Volts
Maximum Instantaneous Reverse Current	@V_R=40V	I_R	0.2	uAmps

2006-3

RATING AND CHARACTERISTICS CURVES (SD101BW)

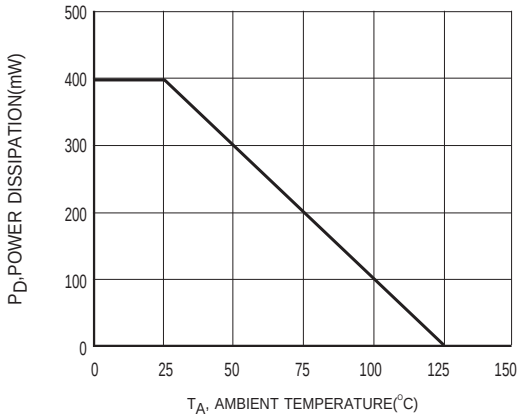


Figure1 Power Derating Curve

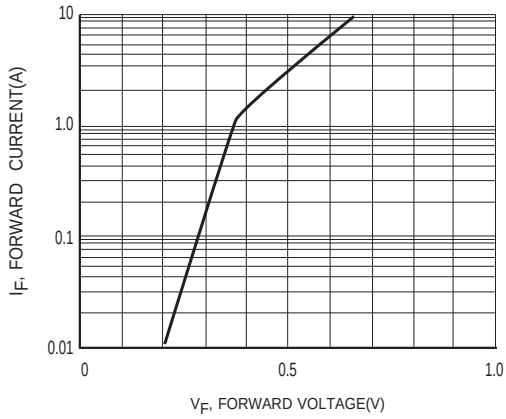


Figure2 Typical Foward Characteristics

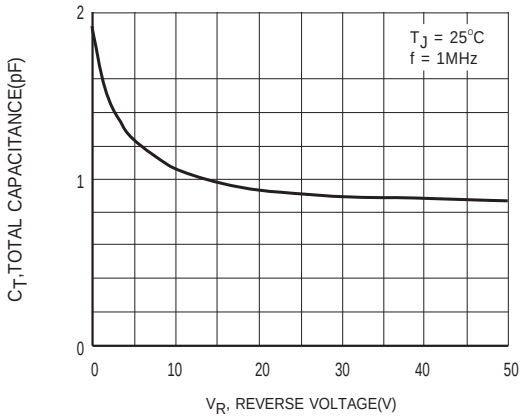


Figure3 Typical Total Capacitance vs Reverse Voltage

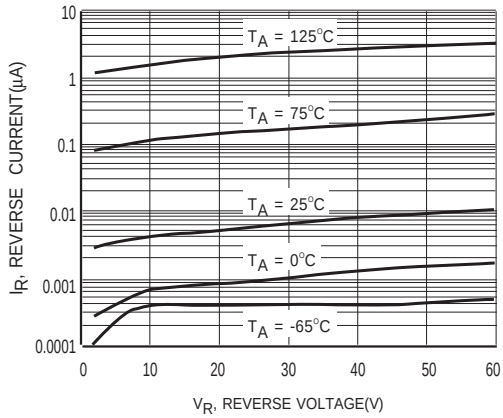


Figure4 Typical Reverse characteristics

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