

**SMALL SIGNAL DIODE**  
**VOLTAGE RANGE 50 Volts**

**FEATURES**

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

**MECHANICAL DATA**

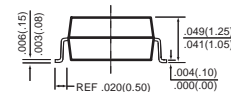
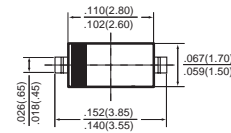
- \* Case: Molded plastic
- \* Epoxy: UL 94V-O rate flame retardant
- \* Lead: MIL-STD-202E method 208C guaranteed
- \* Mounting position: Any
- \* Weight: 0.01 gram

**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%.



**SOD-123**



Dimensions in inches and (millimeters)

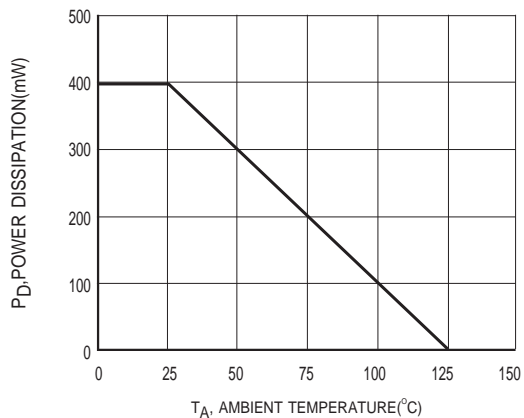
**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

RATINGS	SYMBOL	SD101BW	UNITS
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	Volts
Maximum Working Peak reverse Voltage	$V_{RWM}$		
Maximum DC Blocking Voltage	$V_R$		
Maximum RMS Voltage	$V_{RMS}$	35	Volts
Maximum Reverse Breakdown Voltage( $I_R=10\mu A$ )	$V_{(BR)R}$	50	Volts
Forward Continuous Current	$I_{FM}$	15	mAmps
Non-Repetitive Peak Forward Surge Current	@ $t < 1.0s$	50	mAmps
	@ $t = 10\mu s$	2.0	Amps
Typical Reverse Recovery Time( $I_F=I_R=5mA, I_{rr}=0.1X I_R, R_L=100\Omega$ )	$T_{rr}$	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

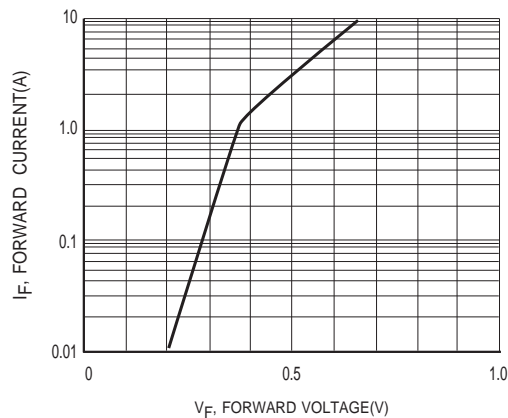
**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

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

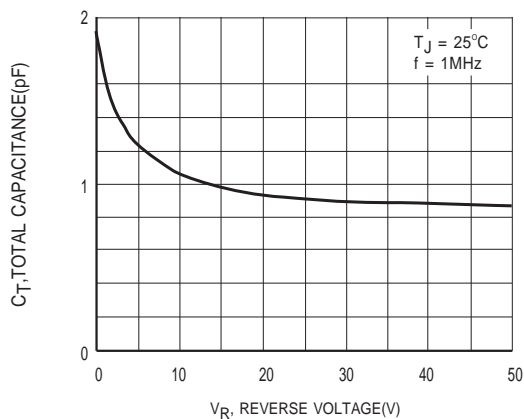
## RATING AND CHARACTERISTICS CURVES ( SD101BW )



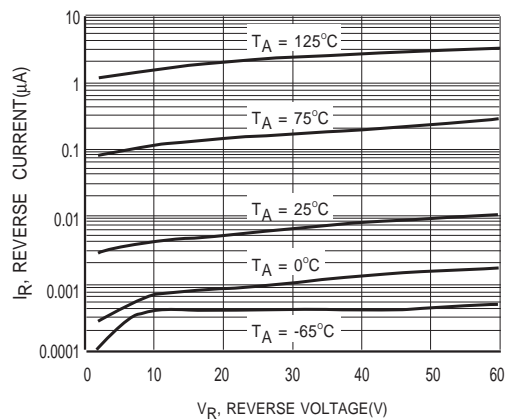
**Figure1 Power Derating Curve**



**Figure2 Typical Forward Characteristics**



**Figure3 Typical Total Capacitance vs Reverse Voltage**



**Figure4 Typical Reverse characteristics**

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