



## SCHOTTKY BARRIER DIODE

### SD101AW THRU SD101CW

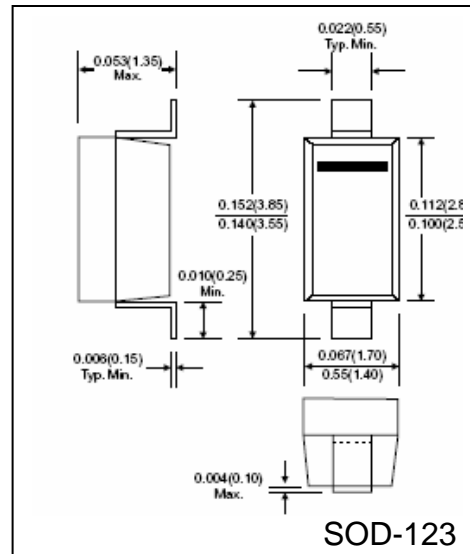
VOLTAGE RANGE 40 To 60 Volts  
CURRENT 15 mA

#### FEATURES

- Fast Switching speed
- Low forward voltage
- Low capacitance
- Guard ring for transient and ESD protection
- Also available in the DO-35 package as SD101A and Mini-MELF as LL101A

#### MECHANICAL DATA

- Case: SOD-123 Plastic
- Terminals: solderable per MIL-STD-202 Method 208
- Polarity: Color band denotes cathode end
- Weight: 0.00035 ounce, 0.01 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOLS	SD101CW	SD101BW	SD101CW	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	60	50	40	Volt
Continuous Reverse Voltage	$V_R$	60	50	40	Volt
RMS Reverse Voltage	$V_{rms}$	42	35	28	Volt
Forward Continuous Current (Note 1)	$I_{FM}$	15			mA
Non-Repetitive Peak Forward Surge Current @ $T = 1.0\mu S$ $T = 1.0S$	$I_{FSM}$	50 2.0			mA Amps
Peak Forward Surge Current @ $T_F < 1$ Sec, $T_A = 25^\circ C$	$I_{FSM}$	150			mA
Maximum Forward Voltage @ 1.0mA 15mA	$V_F$	0.41 1.0	0.4 0.95	0.39 0.90	Volts
Maximum Leakage Current, @ $T_j = 25^\circ$	$I_R$	200 @ $V_F = 50V$	200 @ $V_F = 40V$	200 @ $V_F = 30V$	nA
Maximum Reverse Recovery Time $I_F = 10mA$ , $I_R = 10mA$ , $I_{RR} = 1mA$ , $R_L = 100\Omega$	$t_{rr}$	1			nS
Power dissipation (Note 1)	$P_{TOT}$	400			mW
Typical Junction Capacitance, $V_F = 1V$ , $f = 1MHz$	$C_J$	2.0	2.1	2.2	pF
Typical Thermal Resistance	$R_{\theta JA}$	300			$^\circ C/W$
Operating Junction Temperature Range	$T_J$	(-55 to +150)			$^\circ C$
Storage Temperature Range	$T_{STG}$	(-55 to +150)			$^\circ C$

#### Notes:

1. Valid provided terminals are kept at ambient



# RATINGS AND CHARACTERISTIC CURVES SD101AWTHRU SD101CW

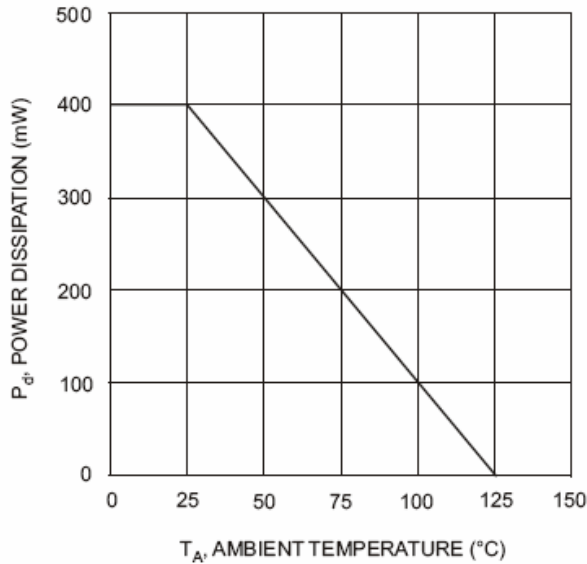


Fig. 1 Power Derating Curve

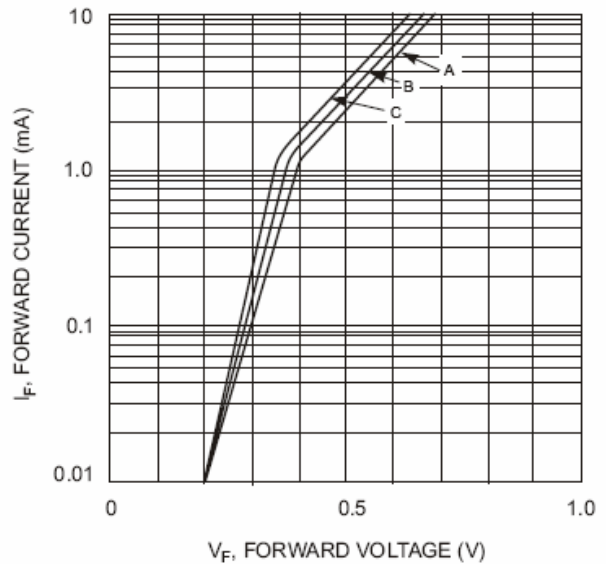


Fig. 2 Typical Forward Characteristic

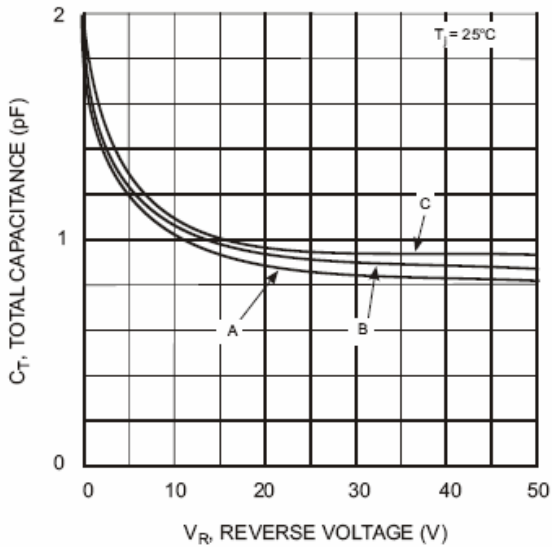


Fig. 3 Typ. Total Capacitance vs Reverse Voltage