SD101A - SD101C

SCHOTTKY BARRIER DIODES

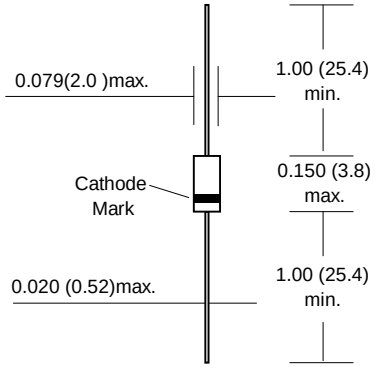
FEATURES :

- For general purpose applications
- The LL101 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 MiniMELF case with type designations LL101A thru LL101C.
- Pb / RoHS Free

MECHANICAL DATA :

Case: DO-35 Glass Case
Weight: approx. 0.13g

DO - 35 Glass
(DO-204AH)



Dimensions in inches and (millimeters)

Maximum Ratings and Thermal Characteristics (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter		Symbol	Value	Unit
Repetitive Peak Reverse Voltage	SD101A SD101B SD101C	V_{RRM}	60 50 40	V
Maximum Single Cycle Surge 10ms Square Wave		I_{FSM}	2	A
Power Dissipation (Infinite Heatsink)		P_D	400(1)	mW
Thermal Resistance Junction to Ambient Air		$R_{\theta JA}$	0.3(1)	°C/mW
Junction Temperature		T_J	125(1)	°C
Storage temperature range		T_S	-55 to + 150 (1)	°C

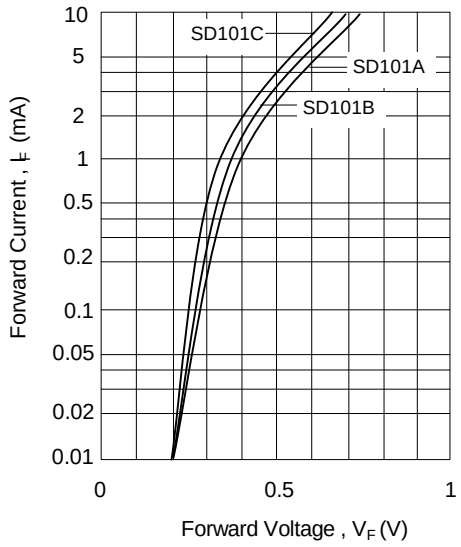
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

Electrical Characteristics (T_J = 25°C unless otherwise noted)

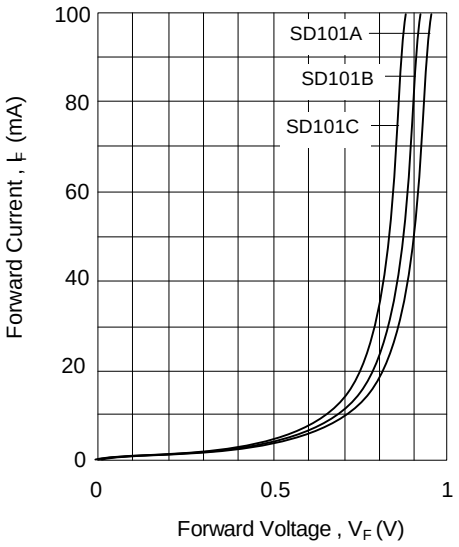
Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	SD101A SD101B SD101C	$V_{(BR)R}$	I_R = 10 µA	60 50 40	- - -	- - -	V
Reverse Current	SD101A SD101B SD101C	I_R	V_R = 50 V V_R = 40 V V_R = 30 V	- - -	- - -	200 200 200	nA
Forward Voltage Drop	SD101A SD101B SD101C	V_F	I_F = 1mA	- - -	- - -	0.41 0.4 0.39	V
	SD101A SD101B SD101C		I_F = 15mA	- - -	- - -	1.0 0.95 0.9	
Reverse Recovery Time		Trr	$I_F = I_R$ = 5mA , recover to 0.1I_R	-	-	1	ns

RATING AND CHARACTERISTIC CURVES (SD101A - SD101C)

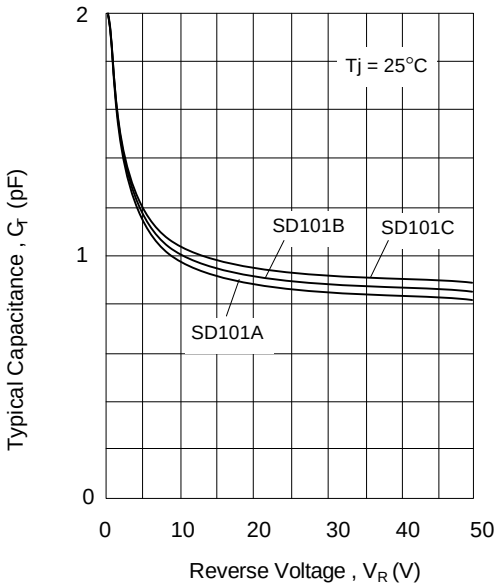
Typical variation of forward current and forward voltage for primary conduction through the schottky barrier



Typical forward conduction curve of combination Schottky barrier and PN junction guard ring



Typical capacitance curve as a function of reverse Voltage



Typical variation of reverse current at various temperatures