

SD101A - SD101C

SCHOTTKY BARRIER DIODES

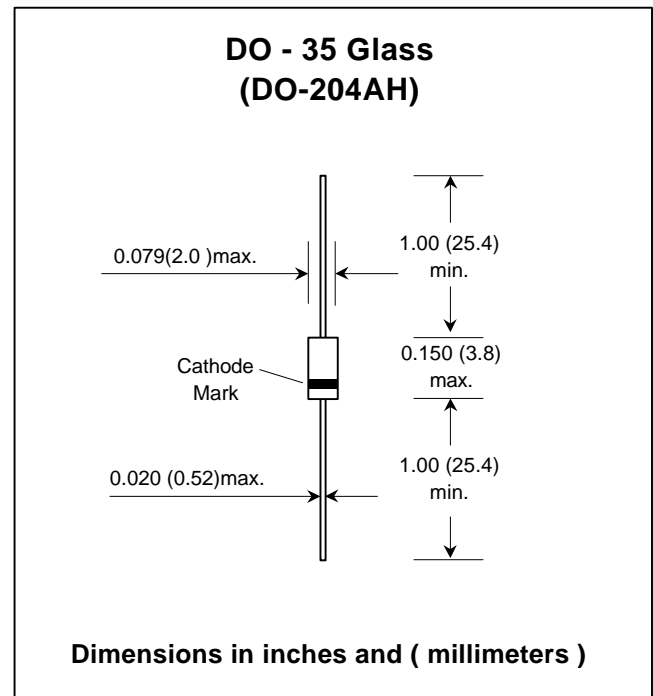
FEATURES :

- 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.

MECHANICAL DATA :

Case: DO-35 Glass Case

Weight: approx. 0.13g



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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	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

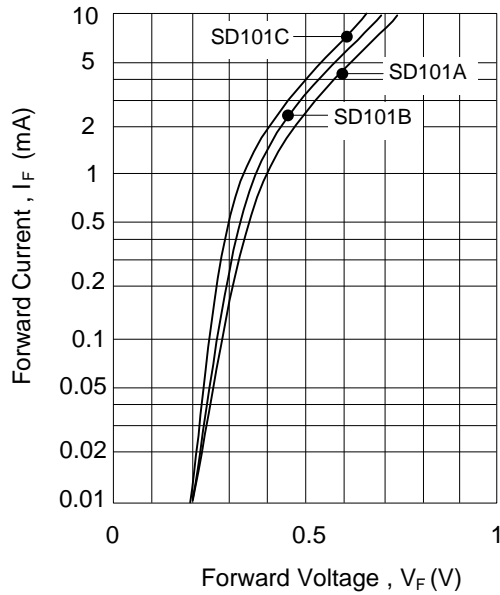
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

Electrical Characteristics ($T_J = 25^\circ\text{C}$ unless otherwise noted)

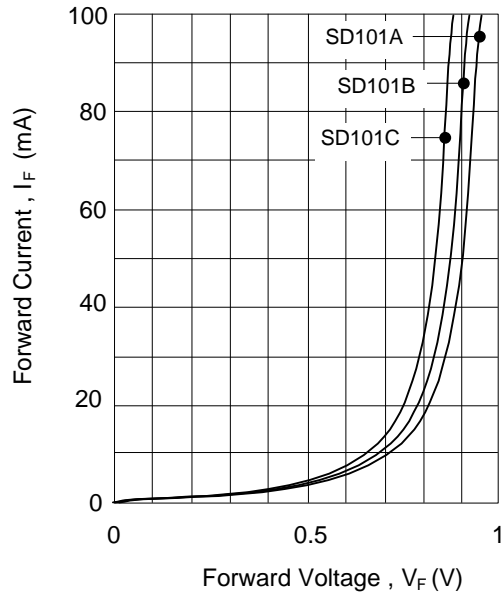
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 10 \mu\text{A}$	60 50 40	- - -	- - -	V
Reverse Current	I_R	$V_R = 50 \text{ V}$ $V_R = 40 \text{ V}$ $V_R = 30 \text{ V}$	- - -	- - -	200 200 200	nA
Forward Voltage Drop	V_F	$I_F = 1 \text{ mA}$	- - -	- - -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

RATING AND CHARACTERISTIC CURVES (SD101A - SD101C)

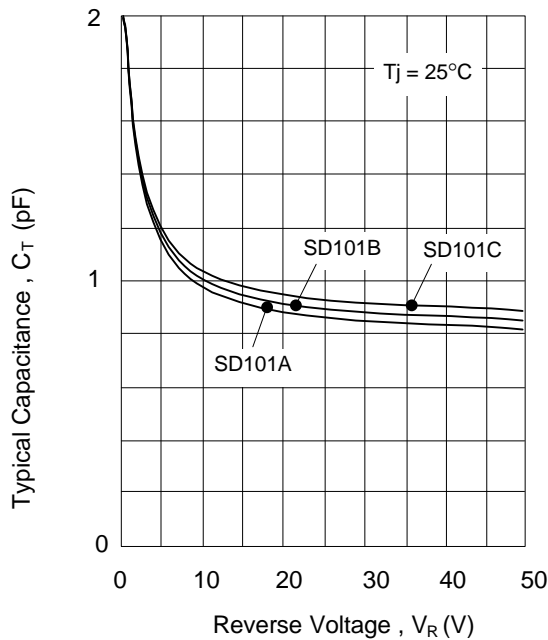
Typical variation of forward current and forward voltage for primary conduction through the schottky barrier



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

