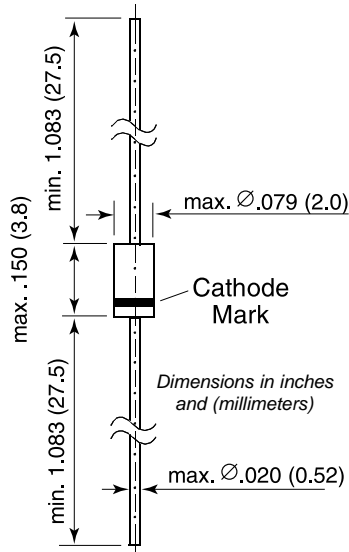


SD101A thru SD101C

Schottky Diodes



Glass DO-35



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 SOD-123 case with type designations SD101AW thru SD101CW and in the MiniMELF case with type designations LL101A thru LL101C.

Mechanical Data

Case: DO-35 Glass Case

Weight: approx. 0.13g

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak Inverse Voltage	SD101A SD101B SD101C	VRRM 60 50 40	V
Power Dissipation (Infinite Heatsink)	P _{tot}	400 ⁽¹⁾	mW
Maximum Single Cycle Surge 10µs Square Wave	I _{FSM}	2	A
Thermal Resistance Junction to Ambient Air	R _{θJA}	0.3 ⁽¹⁾	°C/mW
Junction Temperature	T _j	125 ⁽¹⁾	°C
Storage Temperature Range	T _s	-55 to +150 ⁽¹⁾	°C

SD101A thru SD101C

Schottky Diodes



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

Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Breakdown Voltage	SD101A	V _{(BR)R}	I _R = 10μA	60	—	—	V
	SD101B			50	—	—	
	SD101C			40	—	—	
Leakage Current	SD101A	I _R	V _R = 50V	—	—	200	nA
	SD101B		V _R = 40V	—	—	200	
	SD101C		V _R = 30V	—	—	200	
Forward Voltage Drop	SD101A	V _F	I _F = 1mA	—	—	0.41	V
	SD101B			—	—	0.4	
	SD101C			—	—	0.39	
	SD101A	I _F = 15mA	—	—	1		
	SD101B		—	—	0.95		
	SD101C		—	—	0.9		
Junction Capacitance	SD101A	C _{tot}	V _R = 1V, f = 1MHz	—	—	2.5	pF
	SD101B			—	—	2.5	
	SD101C			—	—	2.5	
Reverse Recovery Time		t _{rr}	I _F = I _R = 5mA, recover to 0.1I _R	—	—	1	ns

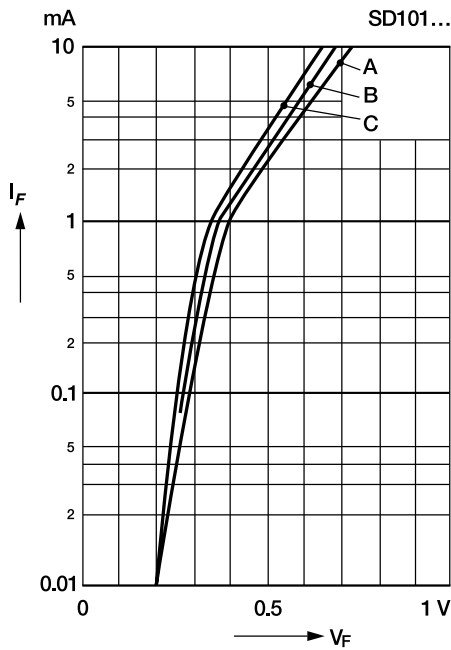
SD101A thru SD101C



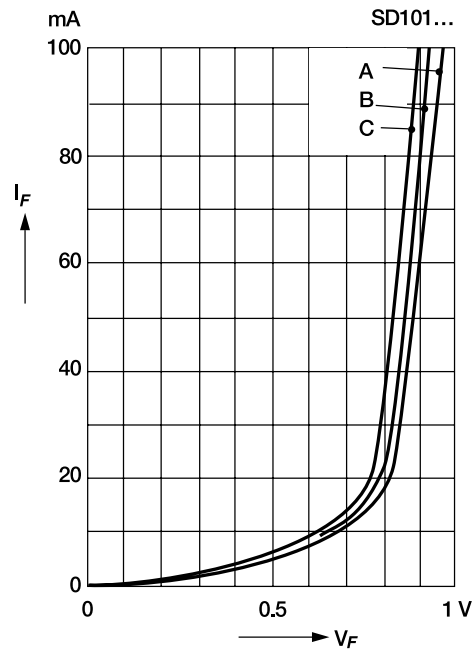
Schottky Diodes

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

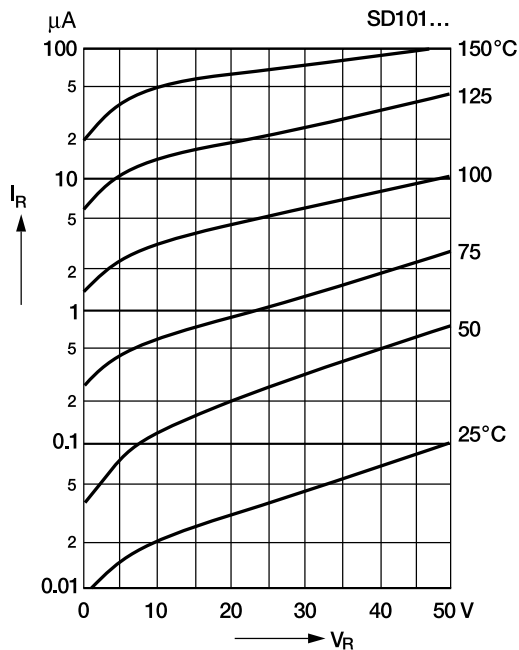
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



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



Typical variation of reverse current at various temperatures



Typical capacitance curve as a function of reverse voltage

