Schottky Barrier Diode

Features

1. High reliability.
2. Low reverse current and low forward voltage.
3. This diode is also available in the SOD 80 case with type designation LL101A, B, C.

Applications

HF-Detector, protection circuit, smaSD battery charger, power supplies, DC/DC converter for notebooks, etc.

Absolute Maximum Ratings

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Value	Unit
Peak inverse voltage		SD101A	V_{RRM}	60	V
		SD101B	V_{RRM}	50	V
		SD101C	V_{RRM}	40	V
Maximum single cycle surge 10 μS square wave			I_{FSM}	2	A
Power dissipation	T_{amb}=25℃		P_V	400	mW
Storage temperature range			T_{stg}	-55~+150	℃

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.

Electrical Characteristics

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage drop	I_F=1mA	SD101A	V_F			0.41	V
		SD101B				0.4	
		SD101C				0.39	
	I_F=15mA	SD101A	V_F			1	V
		SD101B				0.95	
		SD101C				0.9	
Leakage current	V_R=50V	SD101A	I_R			0.2	μA
	V_R=40V	SD101B				0.2	
	V_R=30V	SD101C				0.2	
Junction capacitance	V_R=0V, f=1MHz	SD101A	C_{tot}			2.0	pF
		SD101B				2.1	
		SD101C				2.2	
Reverse recovery time	I_F= I_R=5mA to 0.1I_R		t_{rr}			1	ns

Characteristics (T_j=25℃ unless otherwise specified)

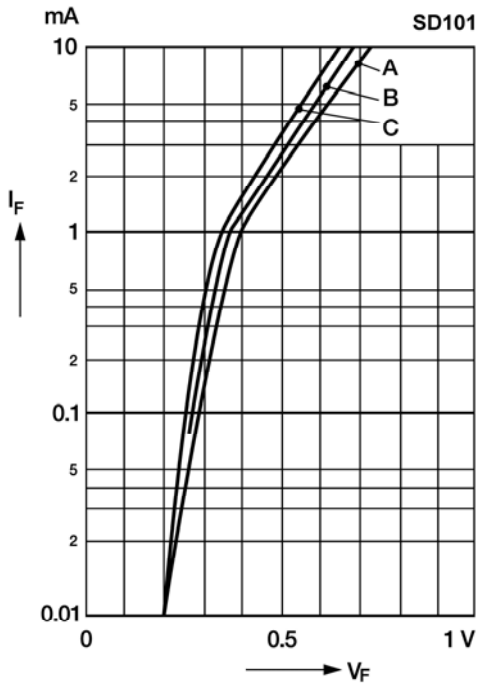


Figure 1. Typ. I_F vs. V_F for primary conduction through the schottky barrier

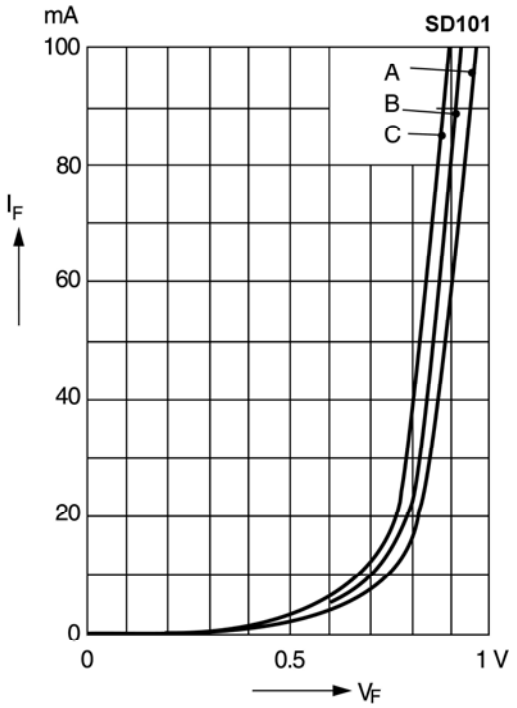


Figure 2. Typ. I_F of combination schottky barrier and PN junction guard ring

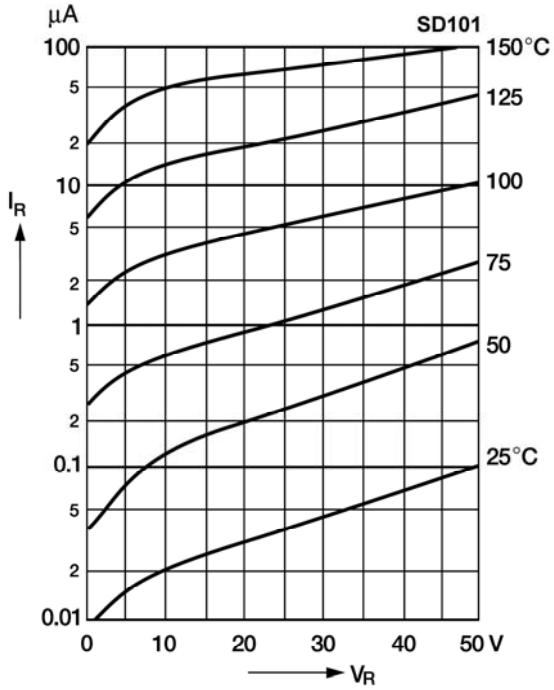


Figure 3. Typical variation of reverse current at various temperatures

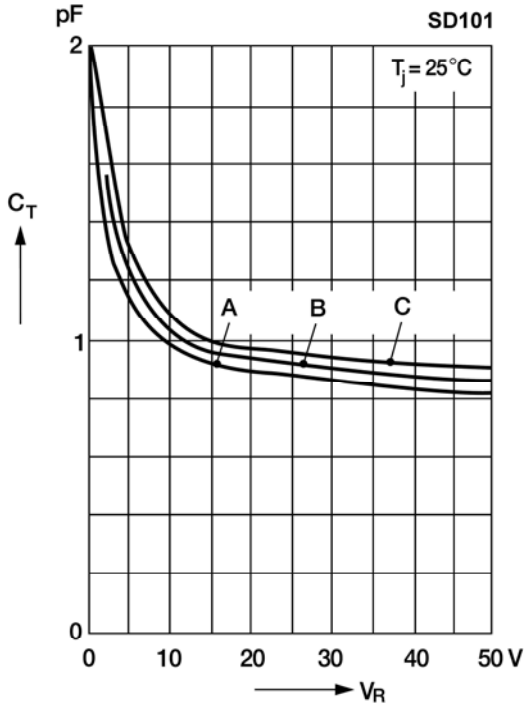
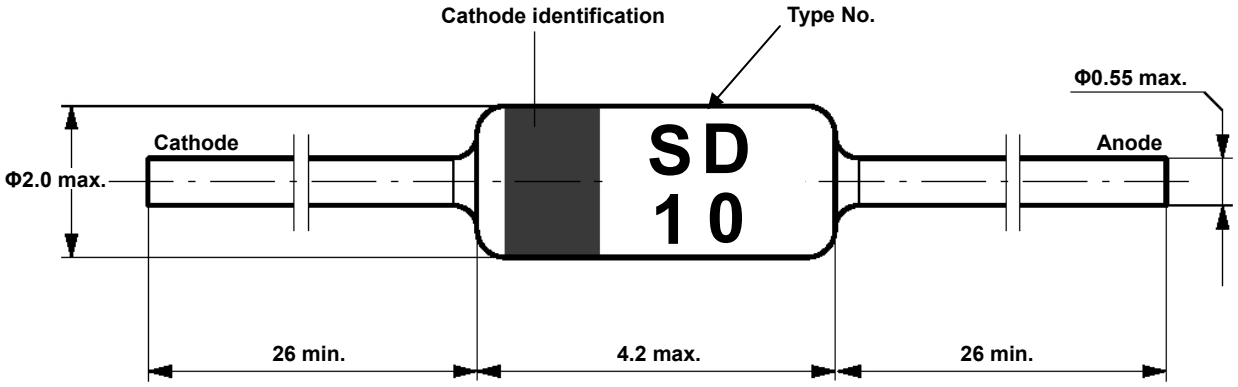


Figure 4. Typical capacitance curve as a function of reverse voltage

Dimensions in mm



Standard Glass Case
JEDEC DO-35

Marking