



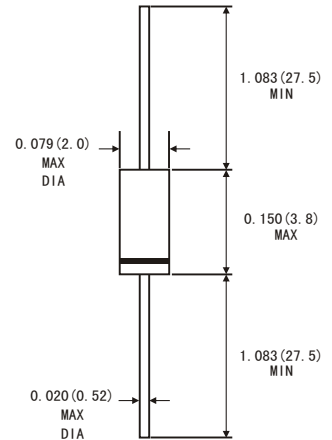
## FEATURES

- For general purpose applications
- The SD101 series is a Metal-on-silicon junction 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 the type designation LL101A to LL101C.
- High temperature soldering guaranteed: 260°C/10 seconds at terminals

## MECHANICAL DATA

- Case: DO-35 glass case
- Polarity: Color band denotes cathode end
- Weight: Approx. 0.05 gram

## DO-35



Dimensions in inches and (millimeters)

## ABSOLUTE RATINGS (LIMITING VALUES)

		Symbols	Value	Units
Peak Reverse Voltage	SD101A SD101B SD101C	$V_{RRM}$ $V_{RRM}$ $V_{RRM}$	60 50 40	V
Power Dissipation (infinite Heat Sink)		$P_{tot}$	400 <sup>1)</sup>	mW
Maximum Single cycle surge 10μs square wave		$I_{FSM}$	2.0	A
Junction temperature		$T_J$	125	°C
Storage Temperature Range		$T_{STG}$	-55 to +150	°C

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

## ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified)

		Symbols	Min.	Typ.	Max.	Units
Reverse breakover voltage at $I_R=10\mu A$	SD101A SD101B SD101C	$V_R$ $V_R$ $V_R$	60 50 40			V
Leakage current at $V_R=50V$ $V_R=40V$ $V_R=30V$	SD101A SD101B SD101C	$I_R$ $I_R$ $I_R$			200 200 200	nA nA nA
Forward voltage drop at $I_F=1mA$  $I_F=15mA$	SD101A SD101B SD101C SD101A SD101B SD101C	$V_F$ $V_F$ $V_F$ $V_F$ $V_F$ $V_F$			0.41 0.4 0.39 1 0.95 0.9	V V V V V V
Junction Capacitance at $V_R=0V$ , $f=1MHz$	SD101A SD101B SD101C	$C_J$ $C_J$ $C_J$			2.0 2.1 2.2	pF pF pF
Reverse Recovery time at $I_F=I_R=5mA$ , recover to 0.1 $I_R$		$t_{rr}$			1	ns
Thermal resistance, junction to Ambient		$R_{\theta JA}$			300 <sup>1)</sup>	K/W

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

Figure 1. Typical variation of fwd.current vs.fwd. Voltage for primary conduction through the schottky barrier

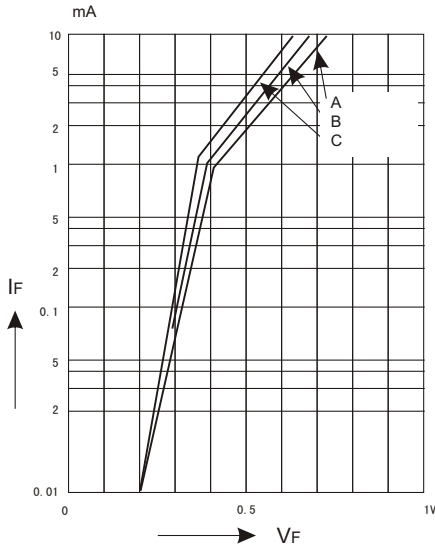


Figure 3. Typical variation of reverse current at various temperatures

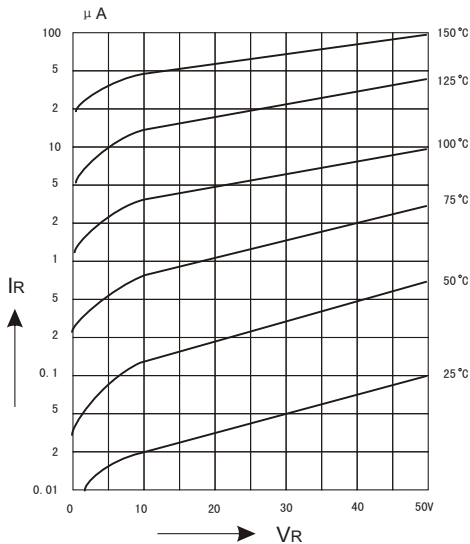


Figure 2. Typical forward conduction curve of combination Schottky barrier and PN junction guard ring

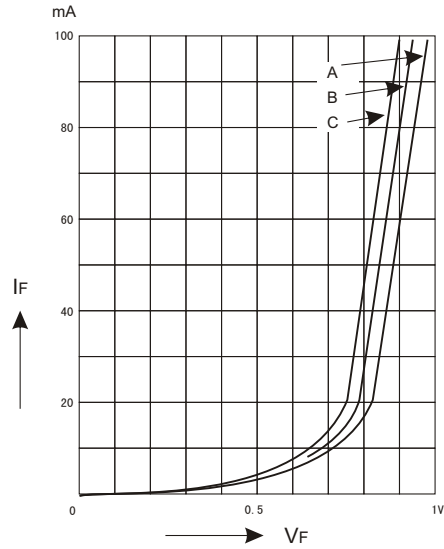


Figure 4. Typical capacitance curve as a function of reverse voltage

