

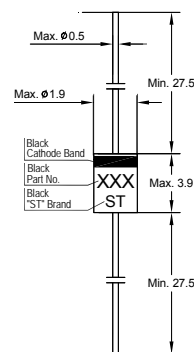
# SD101B, SD101C

## Silicon Schottky Barrier Diodes

for general purpose applications

The SD101 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.

This diode is also available in MiniMELF case with type designation LL101B, C.



Glass Case DO-35  
Dimensions in mm

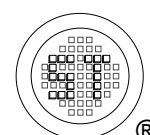
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	SD101B SD101C $V_{RRM}$	50 40	V
Non-Repetitive Peak Forward Surge Current	at $t = 1\text{ s}$ at $t = 10\text{ }\mu\text{s}$ $I_{FSM}$	50 2	mA A
Power Dissipation	$P_{tot}$	400 <sup>1)</sup>	mW
Junction Temperature	$T_j$	200	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 200	$^\circ\text{C}$

<sup>1)</sup> Valid provided the leads direct at the case are kept at ambient temperature.

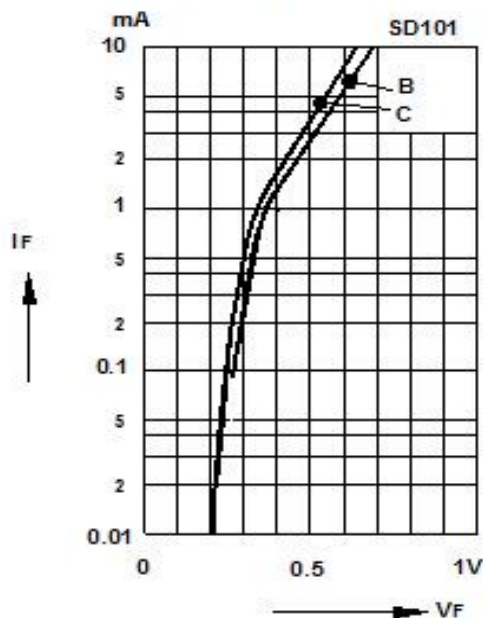
### Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 10\text{ }\mu\text{A}$	SD101B SD101C $V_{(BR)R}$	50 40	- -	V
Forward Voltage at $I_F = 1\text{ mA}$	SD101B SD101C $V_F$	- -	0.4 0.39	V
Forward Voltage at $I_F = 15\text{ mA}$	SD101B SD101C $V_F$	- -	0.95 0.9	V
Reverse Current at $V_R = 40\text{ V}$ at $V_R = 30\text{ V}$	SD101B SD101C $I_R$	-	200	nA
Junction Capacitance at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	SD101B SD101C $C_{tot}$	- -	2.1 2.2	pF
Reverse Recovery Time at $I_F = I_R = 5\text{ mA}$ , recover to $0.1 I_R$	$t_{rr}$	-	1	ns

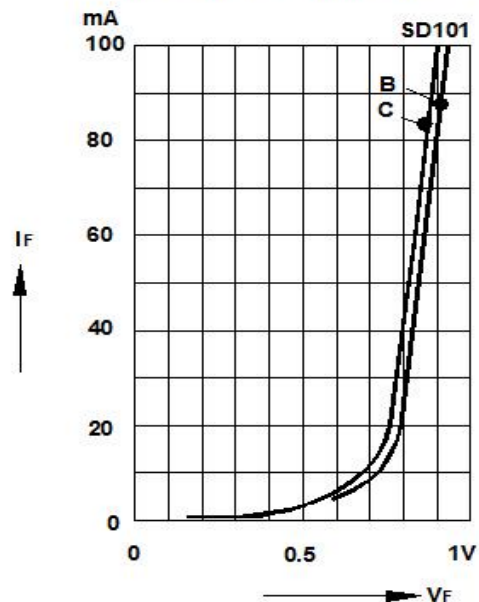


# SD101B,SD101C

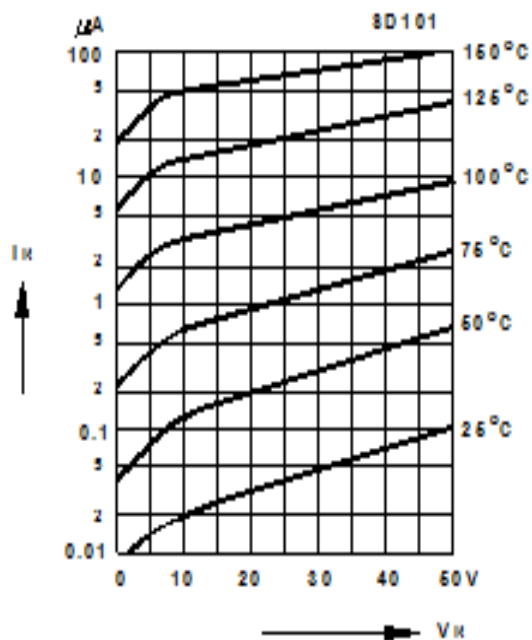
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



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

