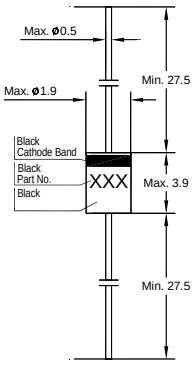
SD101A (1N6263)...SD101C

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.
The SD101A is equivalent to the 1N6263.
This diode is also available in MiniMELF case with type designation LL101A, B, C.



Glass Case DO-35
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

Parameter		Symbol	Value	Unit
Peak Reverse Voltage	SD101A SD101B SD101C	V_{RRM}	60 50 40	V
Power Dissipation		P_{tot}	400 [1)]	mW
Maximum Single Cycle Surge, 10 s Square wave		I_{FSM}	2	A
Junction Temperature		T_j	200	°C
Storage Temperature Range		T_S	- 55 to + 200	°C
[1)] Valid provided the leads direct at the case are kept at ambient temperature.				

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 10 µA	SD101A SD101B SD101C	$V_{(BR)R}$	60 50 40	- - -	V
Forward Voltage at I_F = 1 mA at I_F = 15 mA	SD101A SD101B SD101C SD101A SD101B SD101C	V_F	- - - - - -	0.41 0.4 0.39 1 0.95 0.9	V
Reverse Leakage Current at V_R = 50 V at V_R = 40 V at V_R = 30 V	SD101A SD101B SD101C	I_R	-	200	nA
Junction Capacitance at V_R = 0 V, f = 1 MHz	SD101A SD101B SD101C	C_{tot}	- - -	2 2.1 2.2	pF
Reverse Recovery Time at I_F = I_R = 5 mA , recover to 0.1 I_R		t_{rr}	-	1	ns

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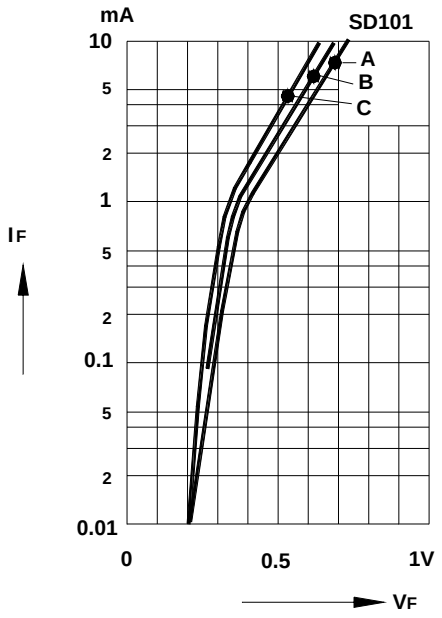
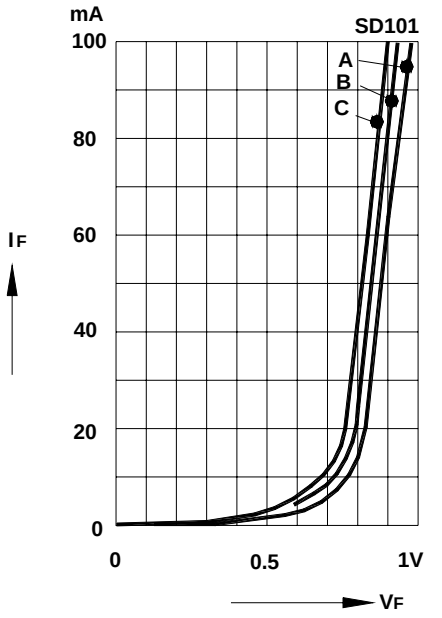
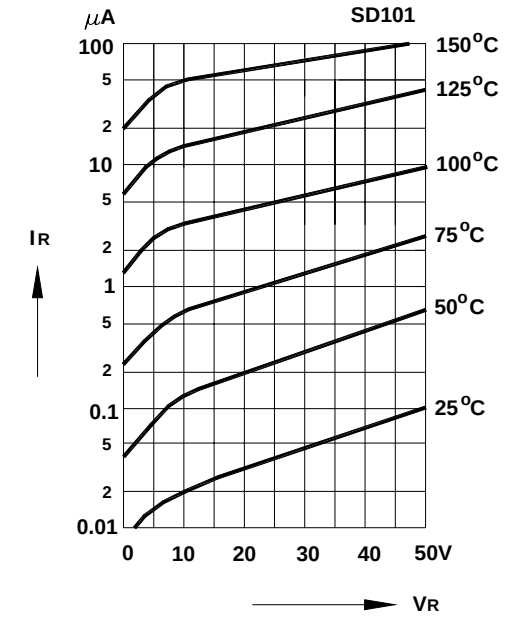
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



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