

SD101A (1N6263) ... SD101C

Silicon Schottky Barrier Diodes

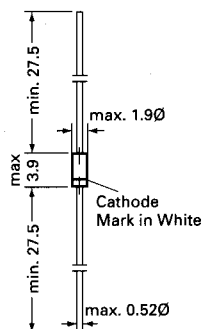
for general purpose applications

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.

These diodes are delivered taped.
Details see "Taping".



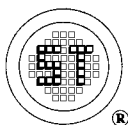
Glass case JEDEC DO-35
54 A 2 according to DIN 41880

Weight approx. 0.13g
Dimensions in mm

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

	Symbol	Value	Unit
Peak Reverse Voltage	SD101A V_{RRM}	60	V
	SD101B V_{RRM}	50	V
	SD101C V_{RRM}	40	V
Power Dissipation at $T_{amb} = 25^\circ\text{C}$	P_{tot}	400 ¹⁾	mW
Max. Single Cycle Surge 10 s Squarewave	I_{FSM}	2	A
Junction Temperature	T_j	200	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to + 200	$^\circ\text{C}$

¹⁾ Valid provided that leads direct at the case are kept at ambient temperature



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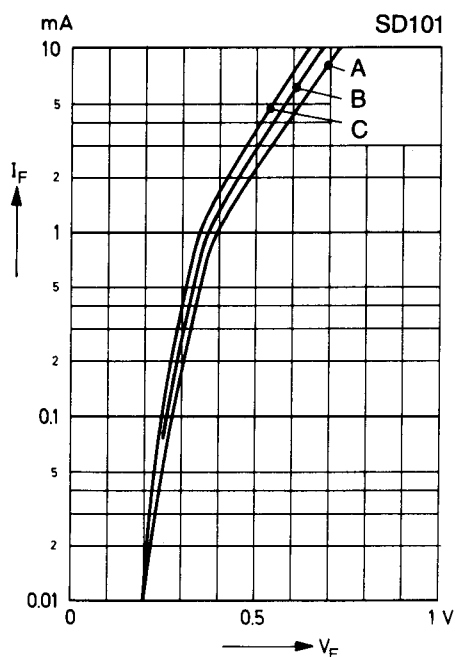
SD101A (1N6263) ... SD101C

Characteristics at $T_{amb} = 25^\circ\text{C}$

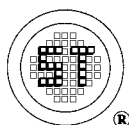
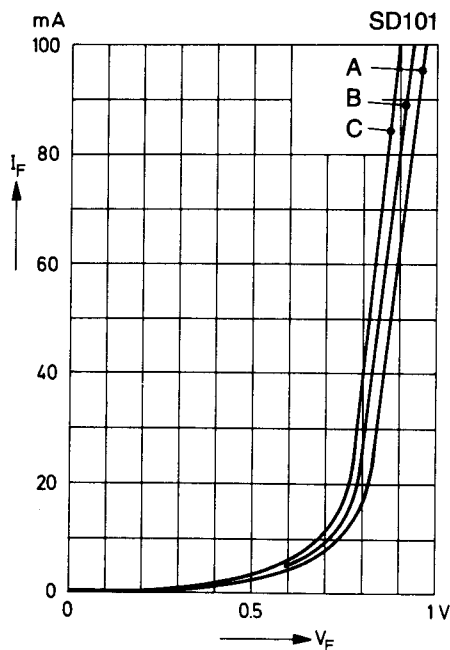
		Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 10\ \mu\text{A}$	SD101A	$V_{(BR)R}$	60	-	-	V
	SD101B	$V_{(BR)R}$	50	-	-	V
	SD101C	$V_{(BR)R}$	40	-	-	V
Leakage Current at $V_R = 50\ \text{V}$ at $V_R = 40\ \text{V}$ at $V_R = 30\ \text{V}$	SD101A	I_R	-	-	200	nA
	SD101B	I_R	-	-	200	nA
	SD101C	I_R	-	-	200	nA
Forward Voltage Drop at $I_F = 1\ \text{mA}$ at $I_F = 15\ \text{mA}$	SD101A	V_F	-	-	0.41	V
	SD101B	V_F	-	-	0.4	V
	SD101C	V_F	-	-	0.39	V
	SD101A	V_F	-	-	1	V
	SD101B	V_F	-	-	0.95	V
	SD101C	V_F	-	-	0.9	V
Junction Capacitance at $V_R = 0\ \text{V}$, $f = 1\ \text{MHz}$	SD101A	C_{tot}	-	-	2.0 ¹⁾	pF
	SD101B	C_{tot}	-	-	2.1	pF
	SD101C	C_{tot}	-	-	2.2	pF
Reverse Recovery Time at $I_F = I_R = 5\ \text{mA}$, recover to $0.1\ I_R$		t_{rr}	-	-	1	ns

¹⁾ JEDEC limit specification on capacitance for 1N6263 is 2.2 pF.

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

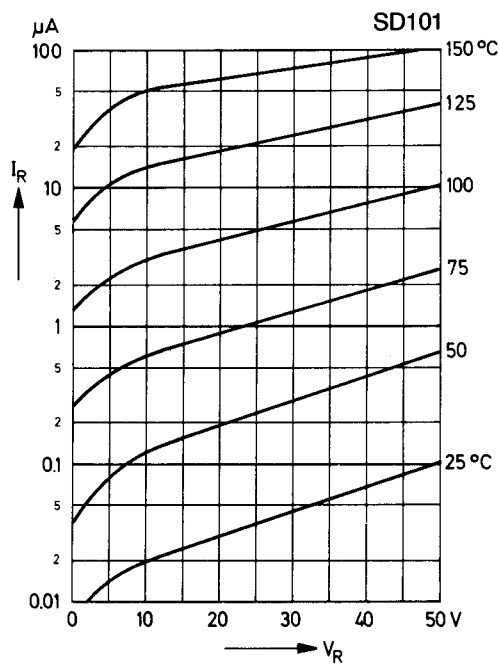


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Typical variation of reverse current
at various temperatures



Typical capacitance curve as a
function of reverse voltage

