

General Purpose Schottky Barrier Diode

General Description

The ND151 Schottky barrier diodes are designed for high-speed switching applications, circuit protection, and voltage clamping. Extremely low forward voltage reduces conduction losses. Miniature surface mount package is excellent for hand-held and portable applications where space is limited.



SOD-923

Features and Benefits

- Low forward drop voltage and low leakage current
- Very low switching time
- “Green” device and RoHS compliant device
- Available in full lead (Pb)-free device

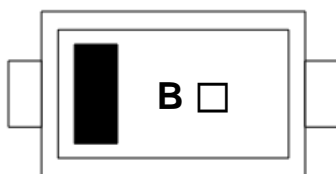
Applications

- General purpose and high speed switching
- Protection circuit and voltage clamping

Ordering Information

Part Number	Marking Code	Package	Packaging
ND151	B □	SOD-923	Tape & Reel

Marking Information


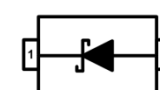


B = Specific Device Code

□ = Year & Week Code Marking

■ = Color band denote cathode

Pinning Information

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

Absolute Maximum Ratings (T_{amb}=25°C, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
DC reverse voltage	V _R	30	V
Forward current	I _F	100	mA
Non-repetitive peak forward surge current (t=8.3ms)	I _{FSM}	2	A
Power dissipation ¹⁾	P _D	50	mW
Operating junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 ~ 150	°C

¹⁾ Device mounted on FR-4 board with recommended pad layout.

Electrical Characteristics (T_{amb}=25°C, Unless otherwise specified)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage ²⁾	V _{F(1)}	I _F =10mA	-	-	0.4	V
	V _{F(2)}	I _F =30mA	-	-	0.5	V
Reverse leakage current ³⁾	I _R	V _R =30V	-	-	1	μA
Total capacitance	C _T	V _R =1V, f=1MHz	-	7.7	-	pF

²⁾ Pulse test: t_p≤380us, Duty cycle≤2%

³⁾ Pulse test: t_p≤5ms, Duty cycle≤2%

Rating and Characteristic Curves

Fig. 1) Typical Forward Characteristics

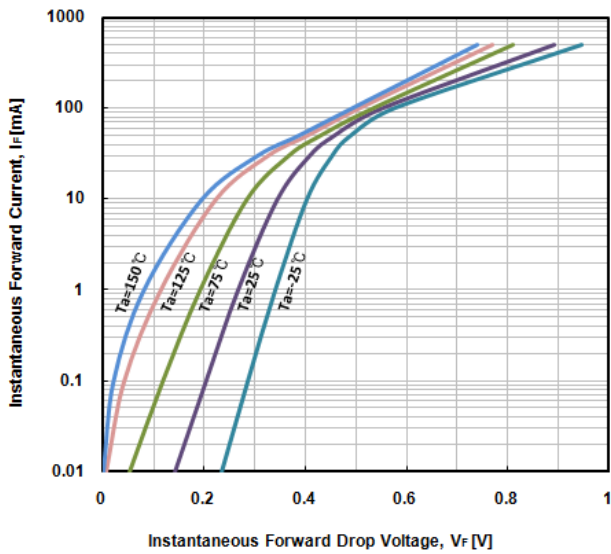


Fig. 2) Typical Reverse Characteristics

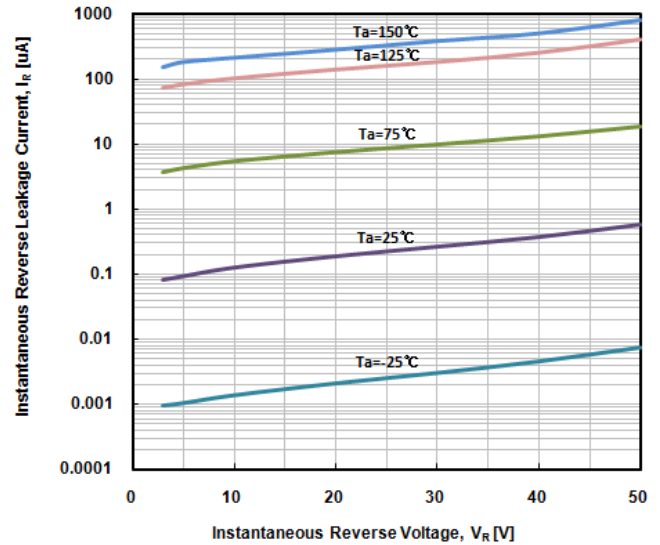
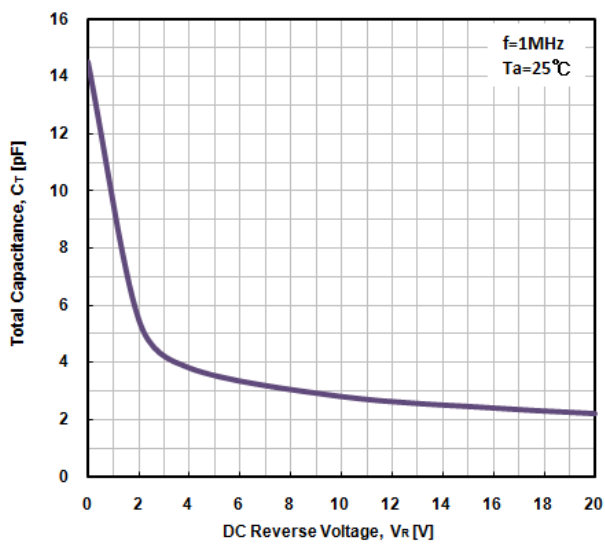
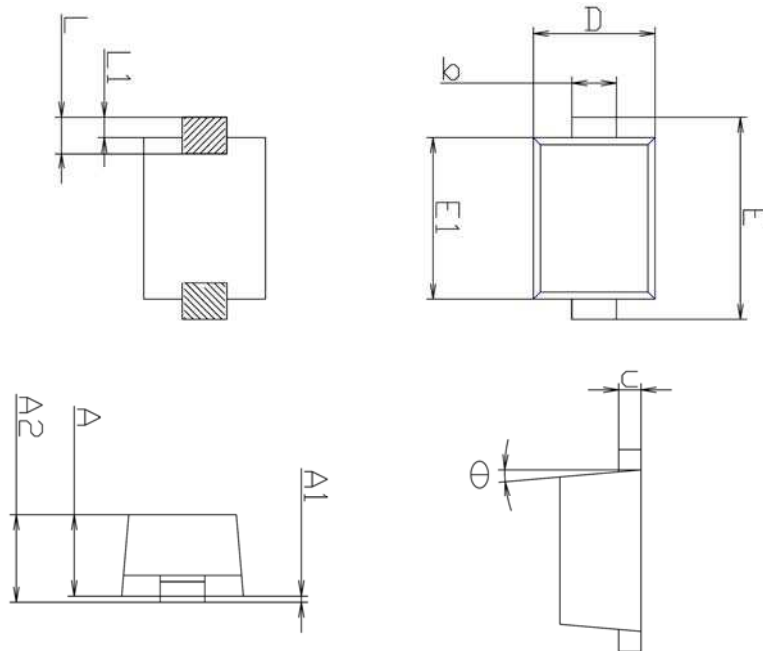


Fig. 3) Typical Total Capacitance Characteristics

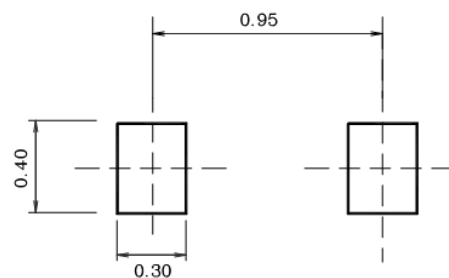


Package Outline Dimensions (Unit: mm)



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.39	0.40	0.41	
A1	-	-	0.05	
A2	-	-	0.43	
b	0.17	0.22	0.27	
c	0.08	0.11	0.14	
D	0.55	0.60	0.65	
E	0.90	1.00	1.10	
E1	0.75	0.80	0.85	
L	0.10	0.18	0.26	
L1	0.05	0.10	0.15	
\ominus	5° REF			

※ Recommend PCB solder land (Unit: mm)



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