

DWNC3D27V1BC ESD Protection Diode

Feature

- Bi-directional ESD protection of one line
- Working voltage: 27V
- 200W Peak pulse Power (8/20us)
- Junction capacitance: 9pF(Typ)
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 30\text{kV}$ contact $\pm 30\text{kV}$ air
- IEC 61000-4-5 (Lightning) 4A (8/20 μs)

Application

- Servers, notebooks, and desktop PCs
- CAN bus protection
- Automotive application
- Cellular handsets and accessories

Mechanical Data

- Package: SOD-323
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	Packing	Reel Size
DWNC3D27V1BC	SOD-323		3000 Tape & Reel	7 inches

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

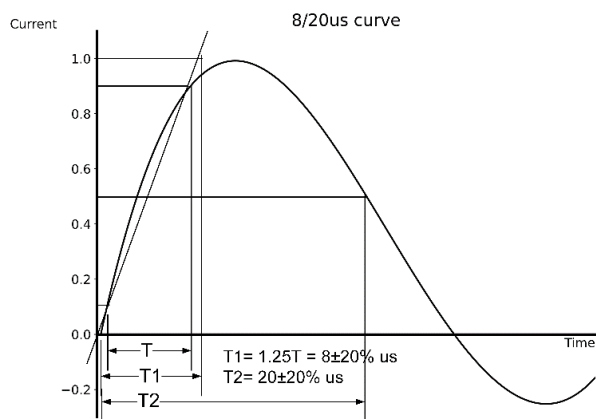
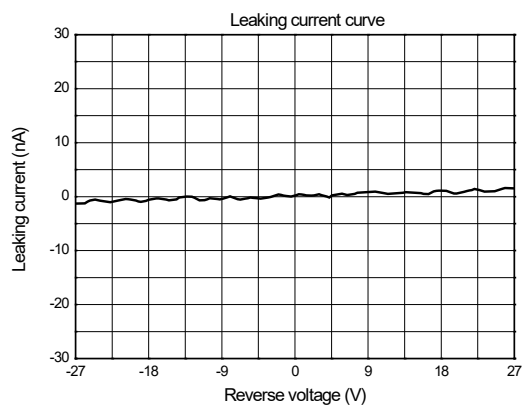
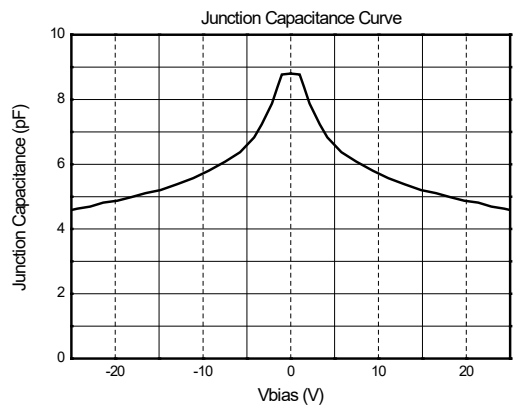
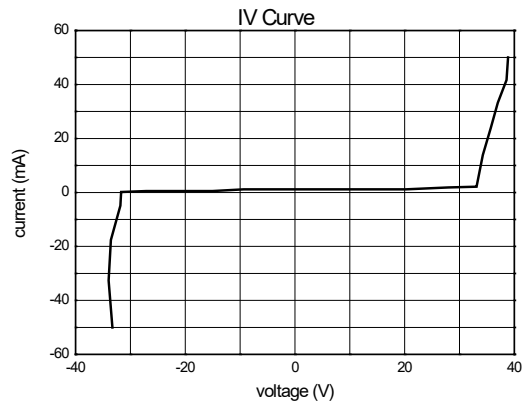
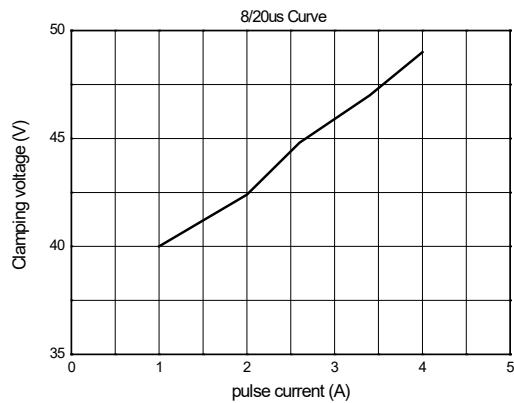
Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P_{PK}	-	200	W
Peak pulse current (tp=8/20us)@25°C	I_{PP}		4	A
ESD (IEC61000-4-2 air discharge) @25°C	V_{ESD}	-	±30	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V_{ESD}	-	±30	kV
Operating temperature	T_{OP}	-40	125	°C
Storage temperature	T_{STG}	-55	150	°C
Lead temperature	T_L	-	260	°C

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				27	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	28			V
Reverse Leakage Current	I_R	$V_{RWM} = 27\text{V}$			100	nA
Holding Voltage	V_C	$I_{PP}=1\text{A}$; tp=8/20us;		40	42	V
Clamping Voltage	V_C	$I_{PP}=4\text{A}$; tp=8/20us;		49	51	V
Junction Capacitance	C_J	$V_R=0\text{V}$; f=1MHz		9	12	pF

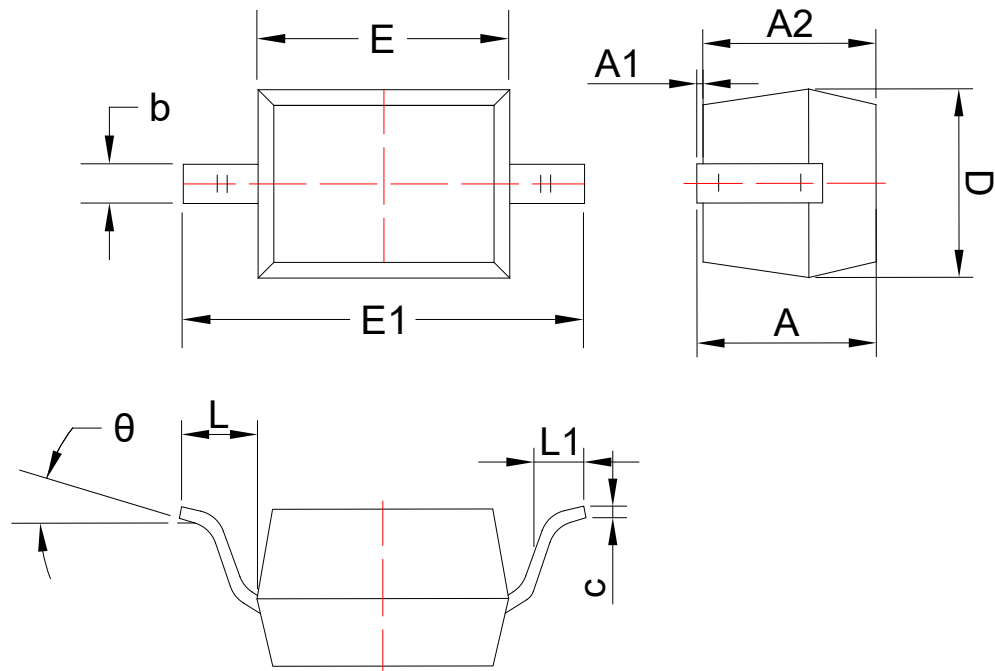


Typical Characteristics





Outline Drawing – SOD-323



Symbol	Dimensions in Millimeters	
	Min.	Max.
A	0.80	1.00
A1	0.00	0.14
A2	0.66	0.97
b	0.25	0.35
c	0.08	0.18
D	1.20	1.40
E	1.55	1.80
E1	2.50	2.80
L	0.475REF	
L1	0.25	0.40
θ	0°	8°