DWNC3D27V1BC-Q 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
- AEC-Q101 qualified
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-5 (Lightning) 4A (8/20μs)

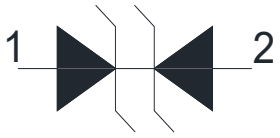
Application

- 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-Q	SOD-323		3000 Tape & Reel	7 inches

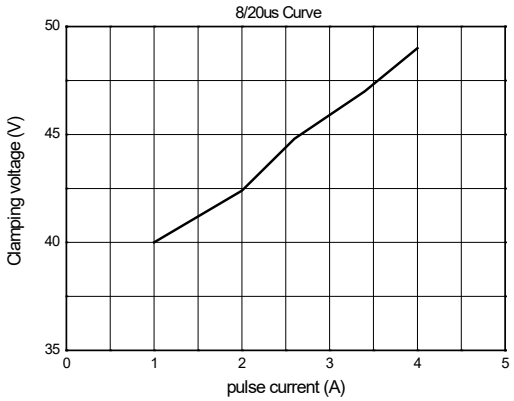
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

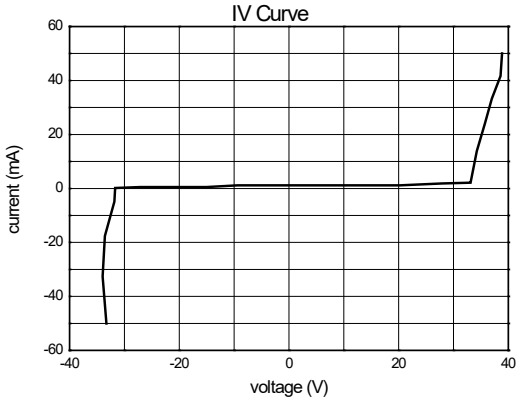
Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25℃	Ppk	-	200	W
Peak pulse current (tp=8/20us)@25℃	IPP		4	A
ESD (IEC61000-4-2 air discharge) @25℃	VESD	-	±30	kV
ESD (IEC61000-4-2 contact discharge) @25℃	VESD	-	±30	kV
Operating temperature	TOP	-40	125	℃
Storage temperature	TSTG	-55	150	℃
Lead temperature	TL	-	260	℃

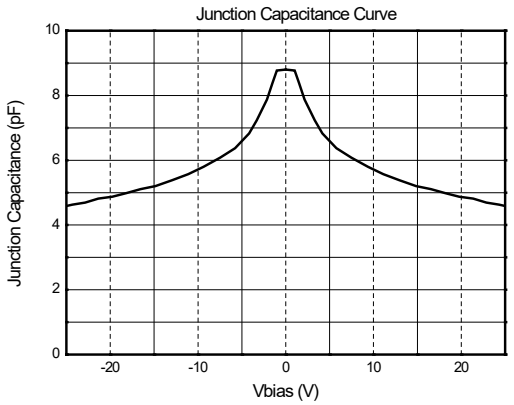
Electrical Characteristics (T_A=25°C unless otherwise specified)

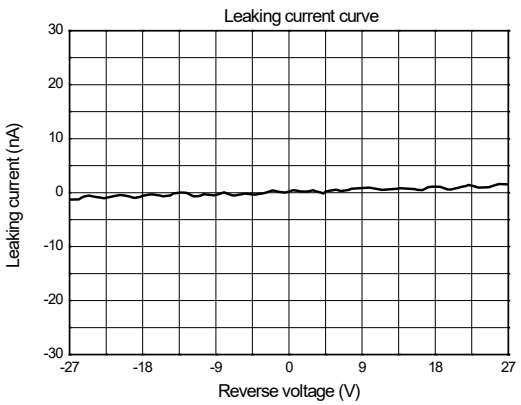
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				27	V
Breakdown Voltage	VBR	IT = 1mA	28			V
Reverse Leakage Current	IR	VRWM = 27V			100	nA
Holding Voltage	VC	IPP=1A; tp=8/20us;		40	42	V
Clamping Voltage	VC	IPP=4A;tp=8/20us;		49	51	V
Junction Capacitance	CJ	VR=0V; f=1MHz		9	12	pF

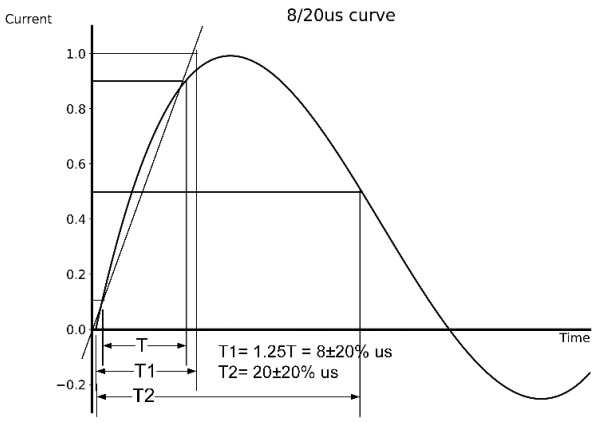
Typical Characteristics



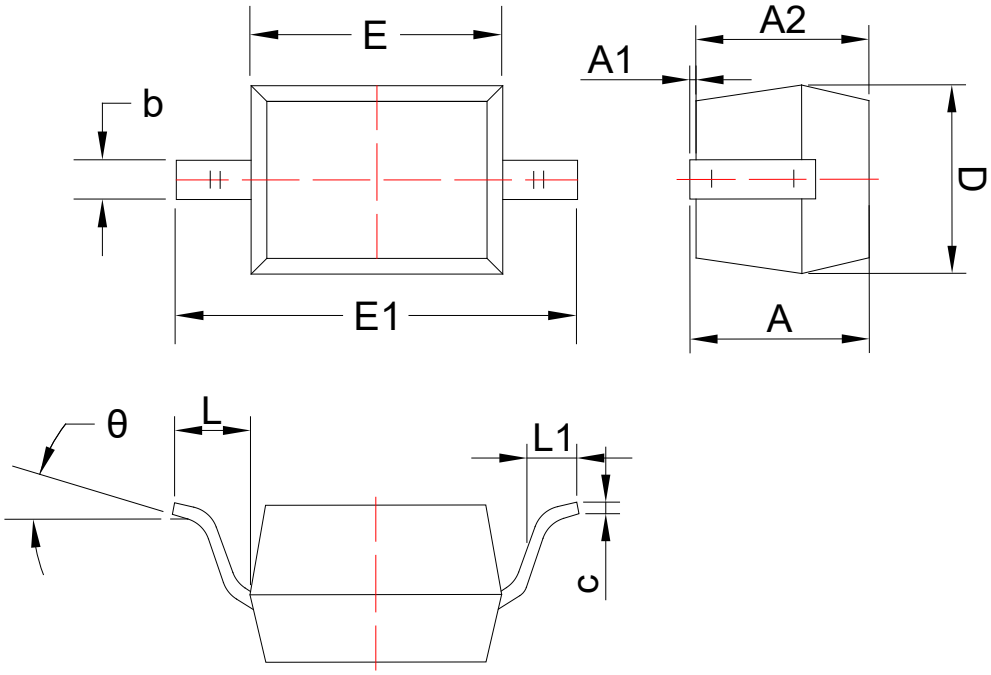








Outline Drawing – SOD-323



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°