



DWNC9D3V1BA-Q ESD Protection Diode

Feature

- Bi-directional ESD protection of one line
- 100W Peak pulse Power (8/20us)
- Working voltage: 3.3V
- Junction Capacitance: 15pF(Typ)
- Low clamping voltage
- Low leakage current
- AEC-Q101 qualified
- IEC 61000-4-2 $\pm 25\text{kV}$ contact $\pm 25\text{kV}$ air
- IEC 61000-4-5 (Lightning) 12A (8/20 μs)

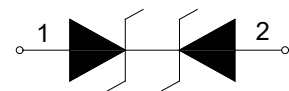
Application

- Cellular handsets and accessories
- Portable digital assistants
- Notebooks & handhelds
- Digital cameras
- MP3 players
- Peripherals

Mechanical Data

- Package: SOD-923
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWNC9D3V1BA-Q	SOD-923		8000 pcs	7 inches



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

Parameter	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25°C	P_{PK}	-	100	W
Peak pulse current (tp=8/20us)@25°C	I_{PP}		12	A
ESD (IEC61000-4-2 air discharge) @25°C	V_{ESD}	-	Q25	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V_{ESD}	-	Q25	kV
Junction temperature	T_J	-	150	°C
Operating temperature	T_{OP}	-40	125	°C
Storage temperature	T_{STG}	-55	150	°C
Lead temperature	T_L	-	260	°C

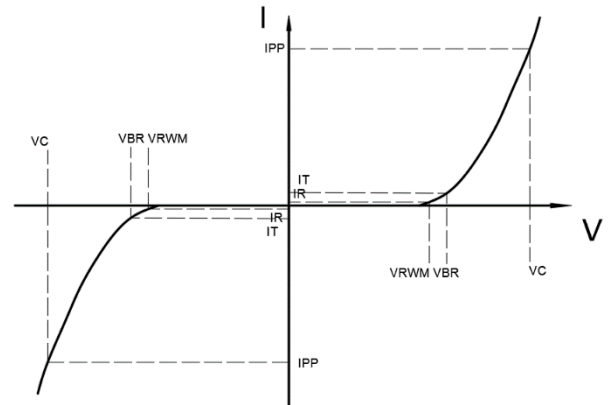
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	3.7			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3\text{V}$			1	uA
Holding Voltage	V_C	$I_{PP}=1\text{A}$; tp=8/20us		5	6	V
Clamping Voltage	V_C	$I_{PP}=12\text{A}$;tp=8/20us		7	8	V
Junction Capacitance	C_J	I/O to GND; $V_R=0\text{V}$; f=1MHz		15	20	pF

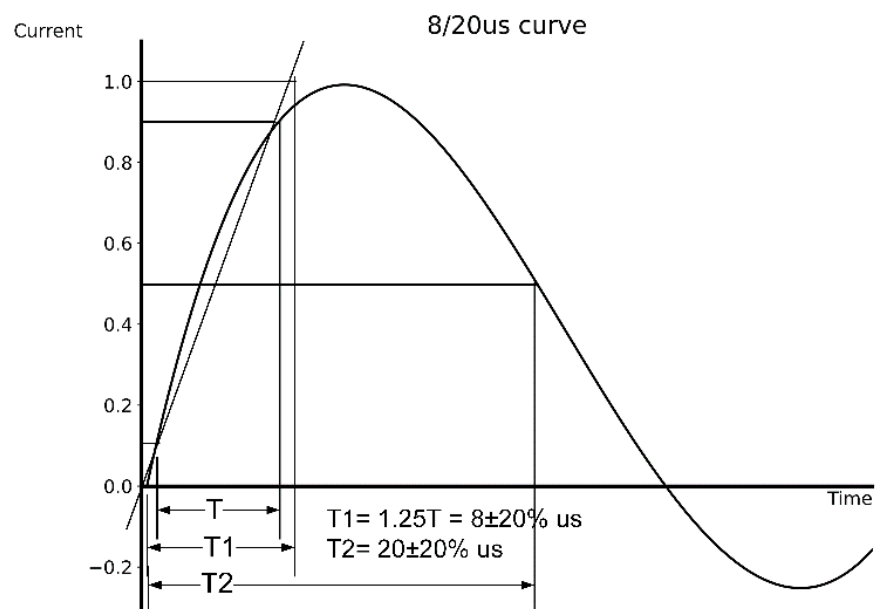


Electrical Parameters

Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F



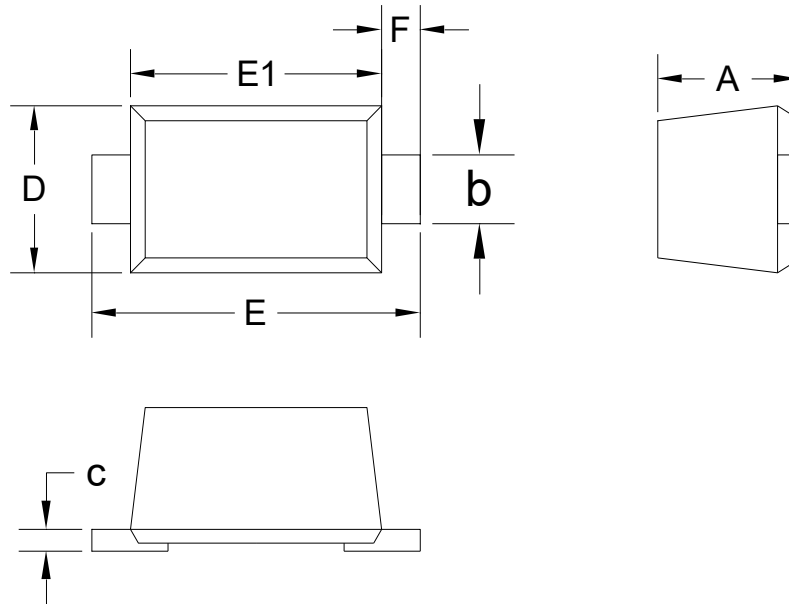
Typical Characteristics



Units in millimeters



SOD-923 Outline Drawing



COMMON DIMENSIONS CUNITS MEASURE=MILLIMETER							
SYMBOL	MIN	MID	MAX	SYMBOL	MIN	MID	MAX
A	0.360	0.400	0.440	E	0.950	1.025	1.100
b	0.150	0.200	0.250	E1	0.750	0.800	0.850
C	0.070	0.120	0.170	F	0.050	0.100	0.150
D	0.550	0.600	0.650				