



DWNC236T3V4B ESD Protection Diode

Feature

- Bi-directional ESD protection of four lines
- 250W Peak pulse Power (8/20us)
- Working voltage: 3.3V
- Junction Capacitance: 30pF(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) 18A (8/20 μs)

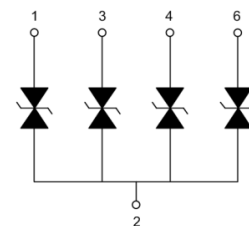
Application

- Computers
- Communication systems
- Wireline and wireless telephone sets
- Printers
- Cellular phones handsets and accessories
- Set top boxes

Mechanical Data

- Package: SOT-23-6L
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWNC236T3V4B	SOT-23-6L		3000 pcs	7 inches



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

Parameter	Symbol	Min.	Max.	Unit
Peak pulse power ($t_p=8/20\mu\text{s}$)	P_{PK}	-	250	W
Peak pulse current ($t_p=8/20\mu\text{s}$)	I_{PP}		18	A
ESD (IEC61000-4-2 air discharge)	V_{ESD}	-	30	kV
ESD (IEC61000-4-2 contact discharge)	V_{ESD}	-	30	kV
Junction temperature	T_J	-	150	$^{\circ}\text{C}$
Operating temperature	T_{OP}	-40	125	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55	150	$^{\circ}\text{C}$
Lead temperature	T_L	-	260	$^{\circ}\text{C}$

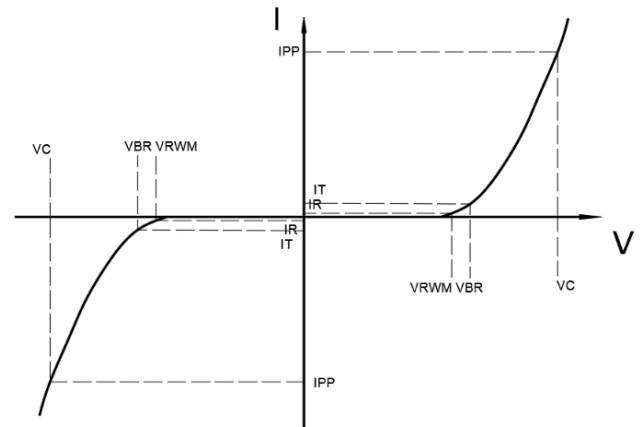
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	4			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3\text{V}$			1	μA
Holding Voltage	V_C	$I_{PP}=1\text{A}; t_p=8/20\mu\text{s}$		5.5		V
Clamping Voltage	V_C	$I_{PP}=18\text{A}; t_p=8/20\mu\text{s}$		10		V
Junction Capacitance	C_J	I/O to GND; $V_R=0\text{V}$; $f=1\text{MHz}$		30		pF

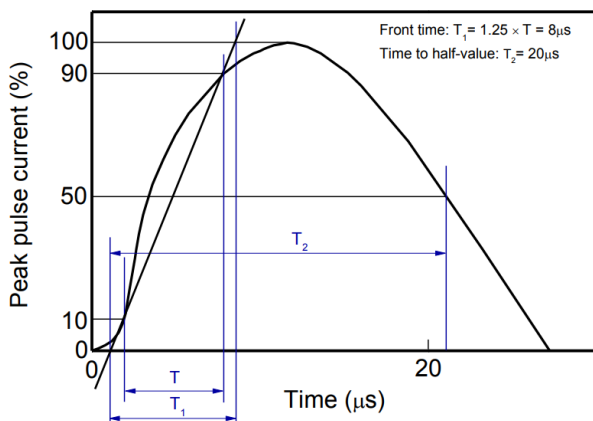


Electrical Parameters

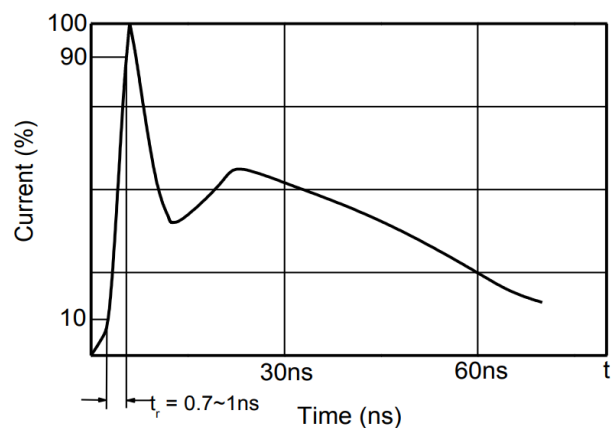
Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F



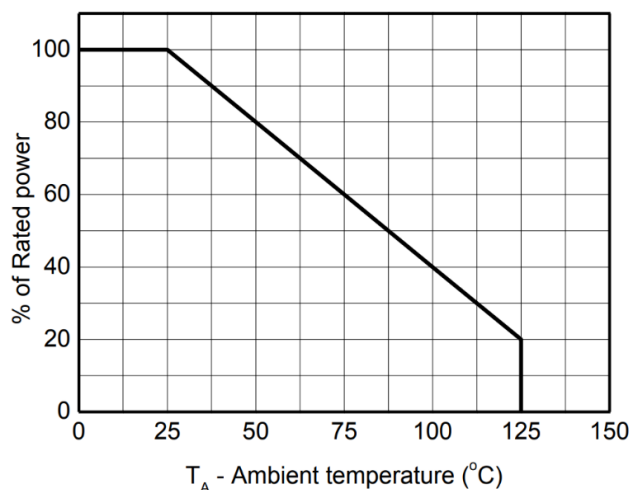
Typical Characteristics



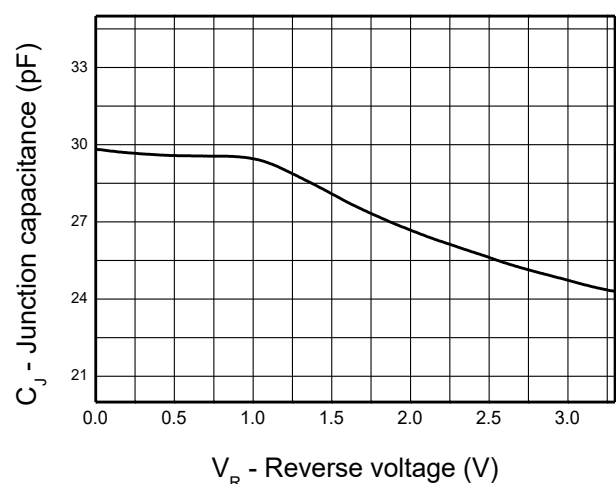
8/20μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2



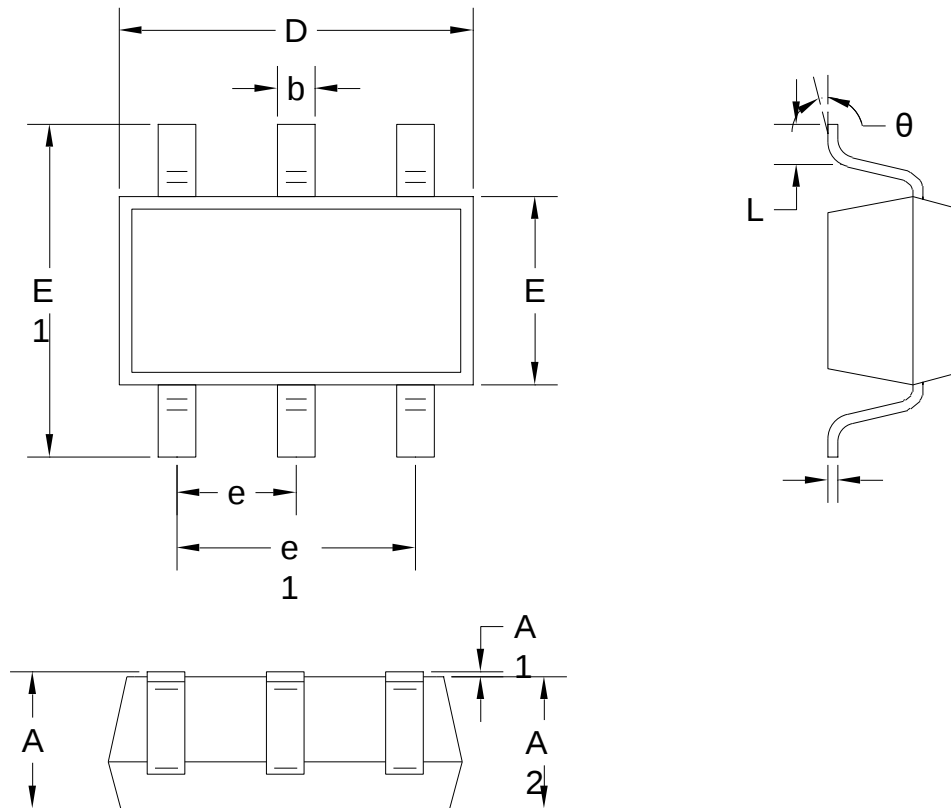
Power derating vs. Ambient temperature



Capacitance vs. Reverse voltage



SOT-23-6L Outline Drawing



Unit: mm

Symbol		A	A1	A2	b	c	D
Spec	Min	1.050	0.000	1.050	0.300	0.100	2.820
	Max	1.250	0.100	1.150	0.500	0.200	3.020
Symbol		E	E1	e	e1	L	θ
Spec	Min	1.500	2.650	0.950BSC	1.800	0.300	0°
	Max	1.700	2.950		2.000	0.600	8°