



DWNC323T24V2BA-Q ESD Protection Diode

Feature

- Bi-directional ESD protection of two lines
- 220W Peak pulse Power (8/20us)
- Working voltage: 24V
- Junction Capacitance: 10pF(Typ)
- Low clamping voltage
- Low leakage current
- AEC-Q101 qualified
- IEC 61000-4-2 $\pm 15\text{kV}$ contact $\pm 15\text{kV}$ air
- IEC 61000-4-5 (Lightning) 4A (8/20 μs)

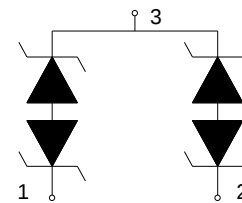
Application

- Servers, notebooks, and desktop PCs
- Set-top box
- Communication systems

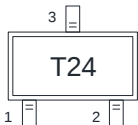
Mechanical Data

- Package: SOT-323
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE compliant

Schematic & PIN Configuration



Ordering Information

Part Number	Package	Marking	QTY per Reel	Reel Size
DWNC323T24V2BA-Q	SOT-323		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}	-	220	W
Peak pulse current ($t_p=8/20\mu\text{s}$)	I_{PP}		4	A
ESD (IEC61000-4-2 air discharge)	V_{ESD}	-	15	kV
ESD (IEC61000-4-2 contact discharge)	V_{ESD}	-	15	kV
Junction temperature	T_J	-	150	$^{\circ}\text{C}$
Operating temperature	T_{OP}	-55	150	$^{\circ}\text{C}$
Storage temperature	T_{STG}	-55	150	$^{\circ}\text{C}$
Lead temperature	T_L	-	260	$^{\circ}\text{C}$

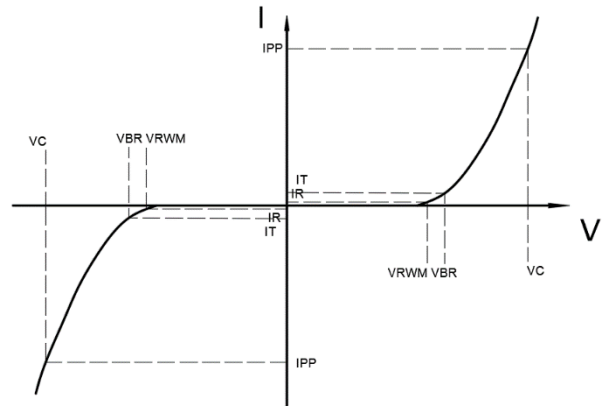
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				24	V
Breakdown Voltage	V_{BR}	$I_T = 1\text{mA}$	26			V
Reverse Leakage Current	I_R	$V_{RWM} = 24\text{V}$			1.0	μA
Holding Voltage	V_C	$I_{PP}=1\text{A}; t_p=8/20\mu\text{s};$		35	38	V
Clamping Voltage	V_C	$I_{PP}=4\text{A}; t_p=8/20\mu\text{s};$		45	48	V
Junction Capacitance	C_J	$V_R=0\text{V}; f=1\text{MHz}$		10	15	pF

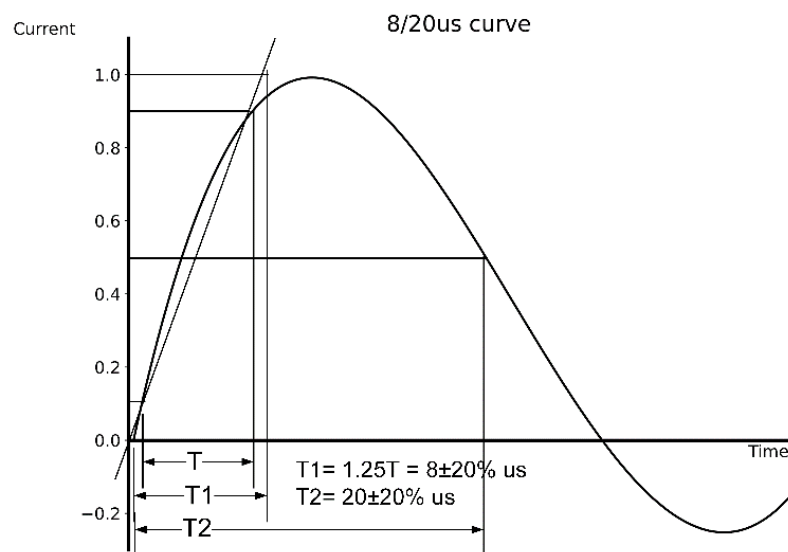


Electrical Parameters

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}

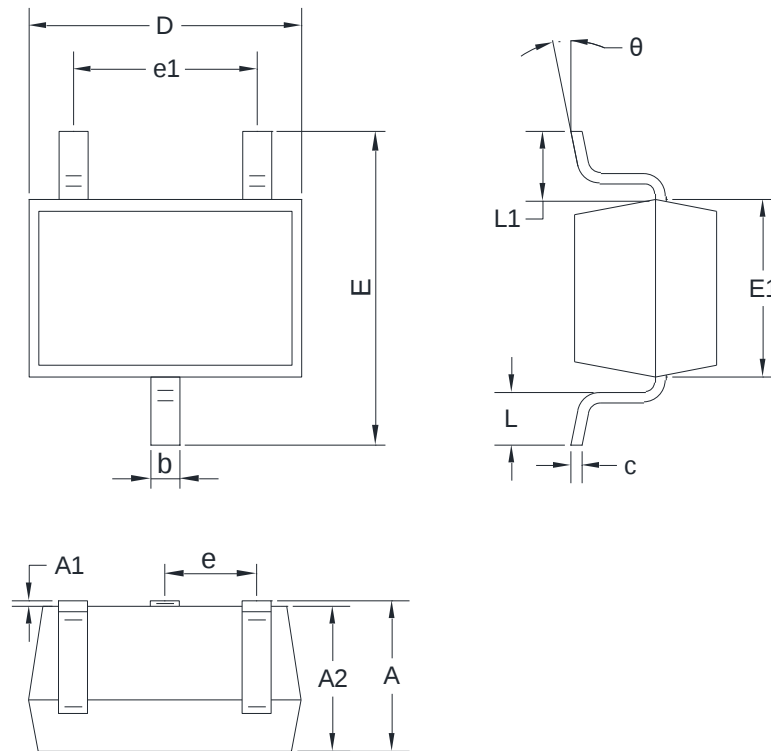


Typical Characteristics





SOT-323 Outline Drawing



Symbol	Millimeters		Symbol	Millimeters	
	Min	Max		Min	Max
A	0.90	1.10	E1	1.15	1.35
A1	0.00	0.10	e	0.65 TYP	
A2	0.90	1.00	e1	1.20	1.40
b	0.20	0.40	L	0.26	0.46
c	0.08	0.15	L1	0.525 REF	
D	2.00	2.20	θ	0°	8°
E	2.15	2.45			