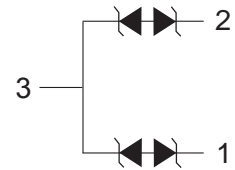
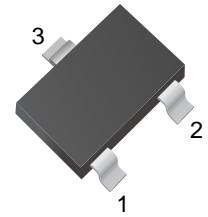


2-Line Bi-directional TVS Diode Array

Features

- Ultra low leakage: nA level
- Operating voltage: 24V
- Low clamping voltage
- Small SOT-323 package
- Up to 2-line protects
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 25\text{kV}$
 - Contact discharge: $\pm 20\text{kV}$
 - IEC61000-4-5 (Lightning) 3A (8/20 μs)
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case: SOT-323
- Approx. Weight: 6mg
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- Terminal Connections: See Diagram

Applications

- Cellular Handsets and Accessories
- Notebooks and Handhelds
- Personal Digital Assistants
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players, Keypads, Side Keys, LCD

Ordering Information

Part Number	Marking	Shipping	Reel
LTE32T24C02-TR3	TCL	3000PCS Tape&Reel	7 inchs
LTE32T24C02-TR12	TCL	12000PCS Tape&Reel	13 inchs

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	Ppk	150	W
Peak Pulse Current (8/20 μs)	IPP	3	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 25 ± 20	kV
Operating Temperature Range	TJ	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			24	V	
Breakdown Voltage	VBR	26.7			V	$I_T = 1\text{mA}$
Reverse Leakage Current	I_R			0.2	μA	$V_{RWM} = 24\text{V}$
Clamping Voltage	VC		33	35	V	$I_{PP} = 1\text{A}$ (8 x 20 μs pulse)
Clamping Voltage	VC		42	50	V	$I_{PP} = 3\text{A}$ (8 x 20 μs pulse)
Junction Capacitance	CJ		10		pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$, Pin 1 to Pin 3 or Pin 2 to Pin 3
Junction Capacitance	CJ		5		pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$, Pin 1 to Pin 2

Characteristics Curves

Fig.1 Junction Capacitance vs. Reverse Voltage

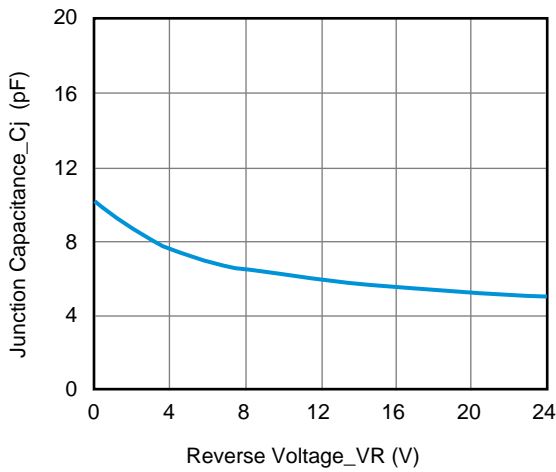


Fig.2 Peak Pulse Power vs. Pulse Time

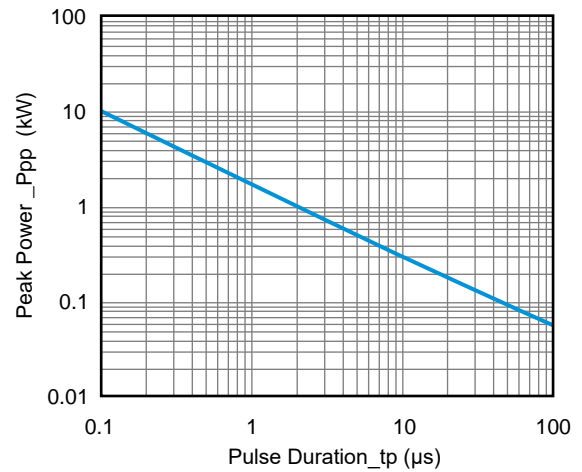


Fig.3 Clamping Voltage vs. Peak Pulse Current

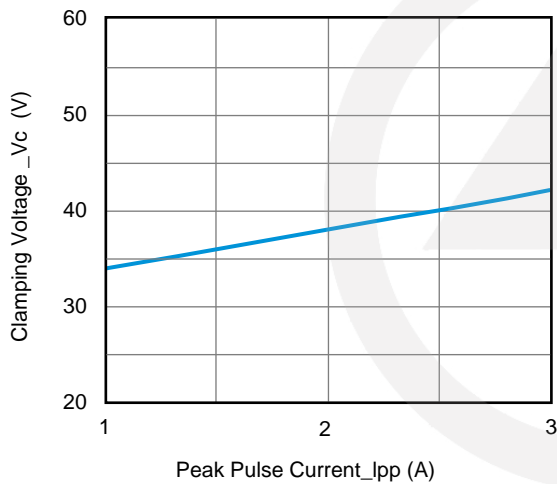


Fig.4 Power Derating Curve

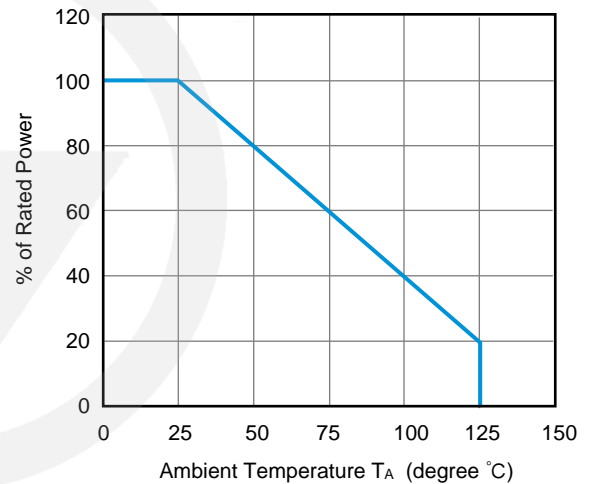


Fig.5 8 X 20μs Pulse Waveform

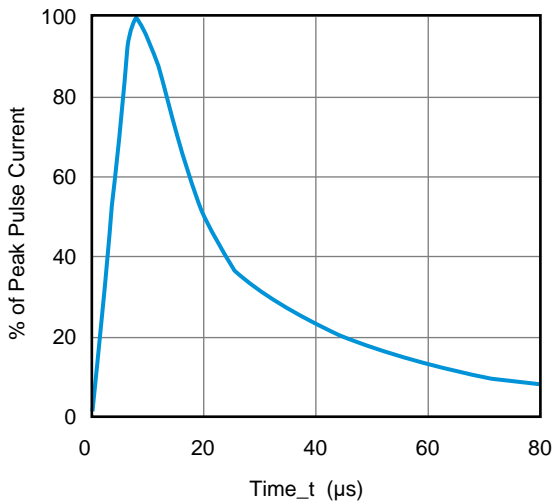
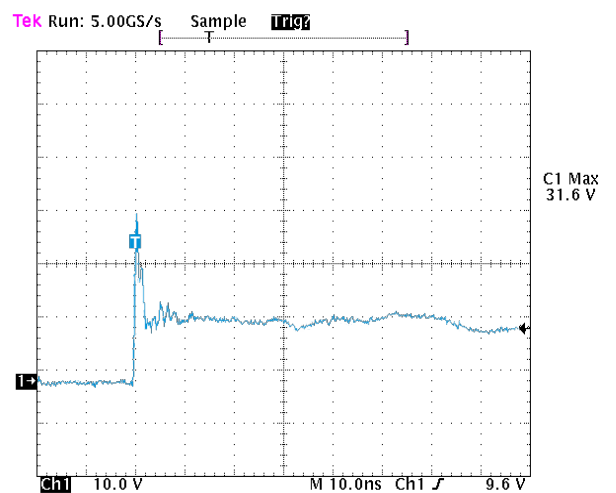


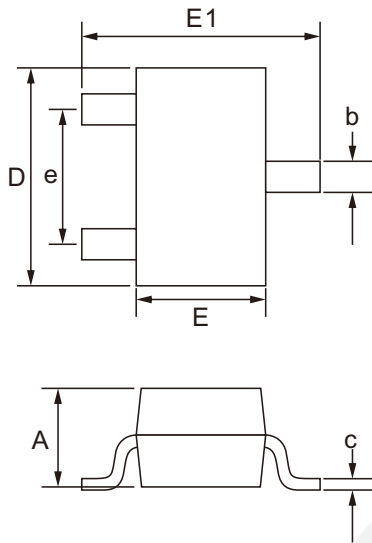
Fig.6



Note: Data is taken with a 10x attenuator
ESD Clamping Voltage
8 kV Contact per IEC61000-4-2



SOT-323 Package Outline

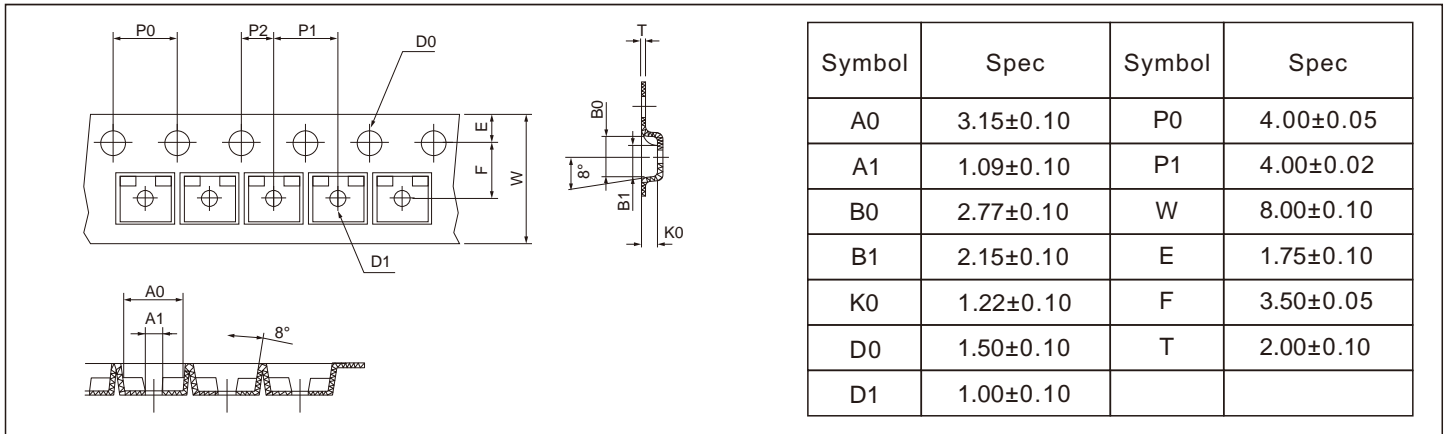


Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.800	1.000
b	0.200	0.400
D	1.800	2.200
E	1.150	1.350
E1	2.150	2.450
C	0.080	0.250
e	1.200	1.400

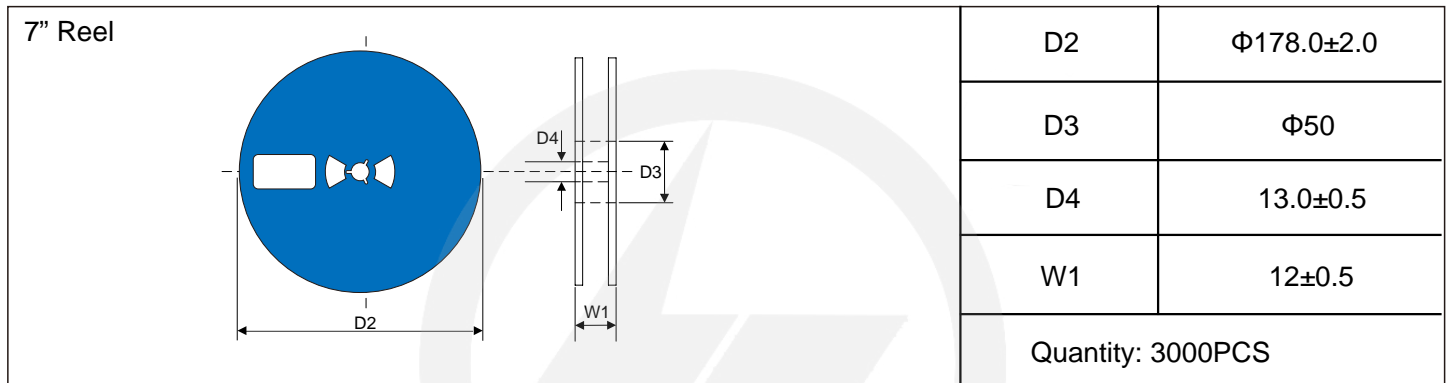
Carrier Tape Dimensions

Unit : mm



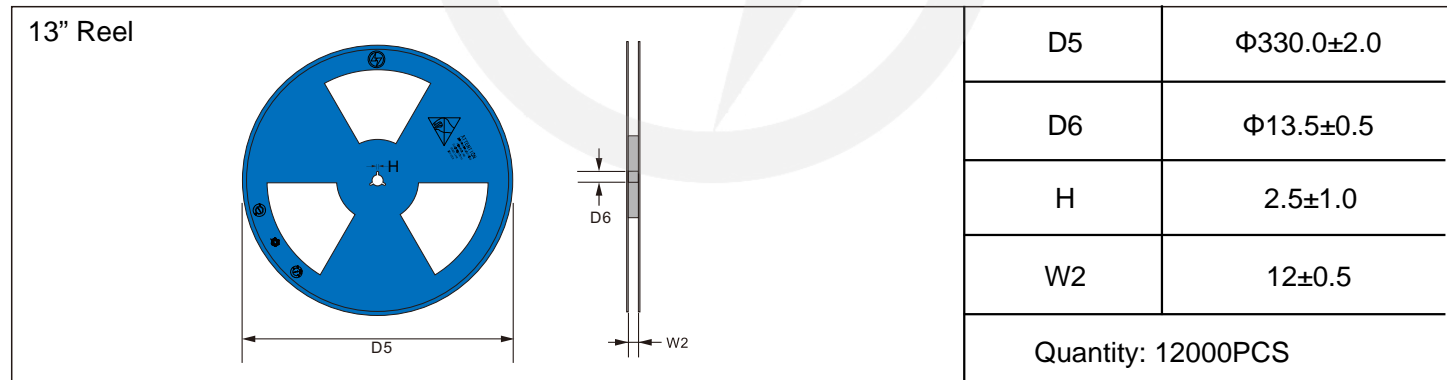
Reel Dimensions

Unit : mm

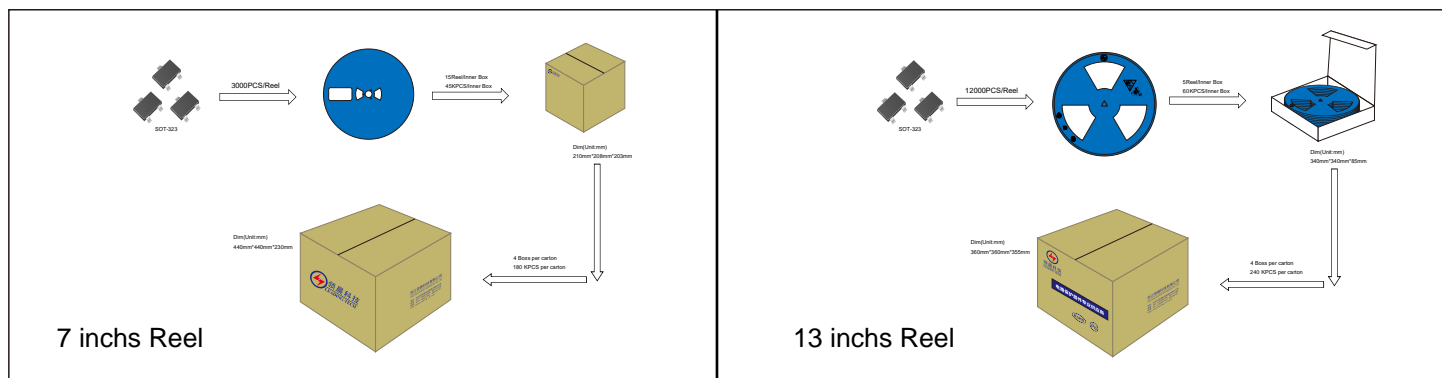


Reel Dimensions

Unit : mm



Packaging





Recommended Soldering Conditions



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat	
-Temperature Min ($T_{S\ min}$)	150°C
-Temperature Max ($T_{S\ max}$)	200°C
-Time (min to max) (t_s)	60-180 seconds
$T_{S\ max}$ to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T_L)	217°C
-Time (t_L)	60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_p)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

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Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision Content	Revision Reason	Revision Person	Note
01	2025.07.27	2025.07.27	3.0	New file	/	Ding	