

Transient Voltage Suppressors

Features

- IEC61000-4-2 Level 4 ESD Protection
- Protects one directional I/O line
- Low clamping voltage
- Working voltages : 36V
- Low leakage current
- Lead free in comply with EU RoHS 2011/65/EU directives



Mechanical Data

- Case:SOD-523
- Flammability Rating: UL 94V-0

Applications

- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Peripherals
- LED backlight

Ordering Information

Part Number	Marking	Shipping	Reel
LTE5L36A01-TR3	5Y or ZS	3000PCS Tape&Reel	7 inches
LTE5L36A01-TR10	5Y or ZS	10000PCS Tape&Reel	7 inches

Absolute Maximum Rating

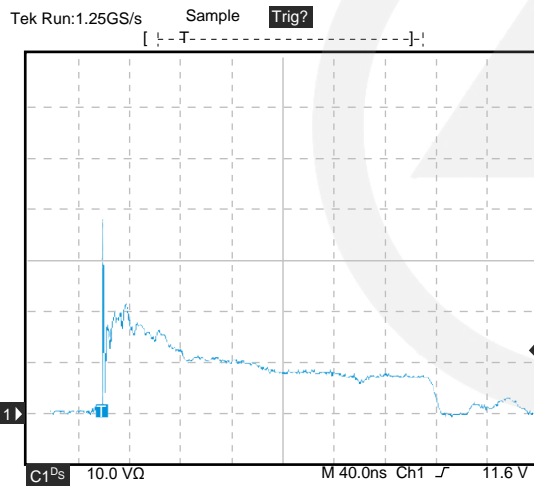
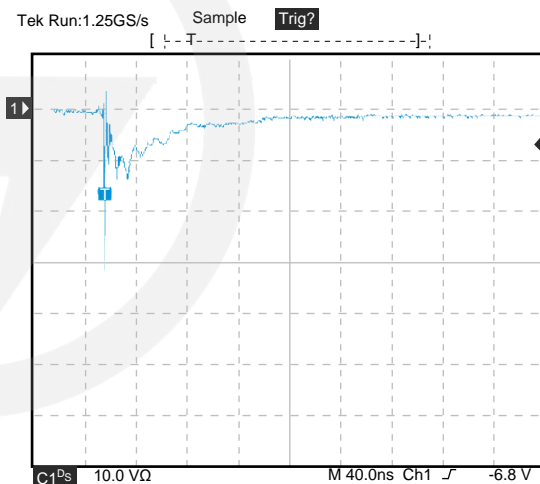
Symbol	Parameter	Value	Unit
V_{ESD}	ESD per IEC 61000-4-2 (Air)	±25	kV
	ESD per IEC 61000-4-2 (Contact)	±20	
P_{PP}	Peak Pulse Power	55	W
T_{OPT}	Operating Temperature	-55~125	°C
T_{STG}	Storage Temperature	-55~150	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

Note1: FR-5=1.0x0.75x0.62 in.

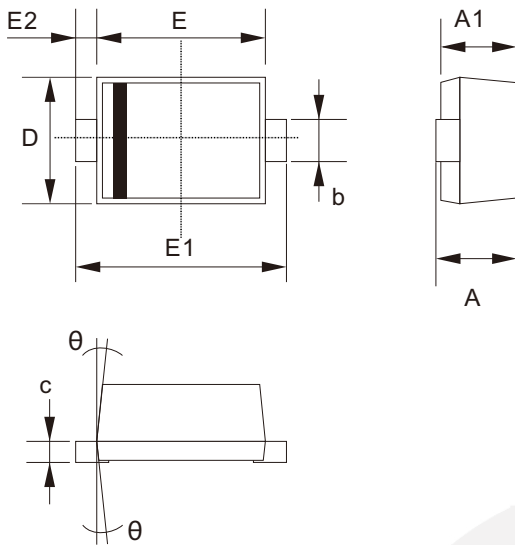
Electrical Characteristics (TA=25°C unless otherwise specified)

Symbol	Parameter	Test Condition	Min	Typ	Max	Unit
V_{RWM}	Reverse Working Voltage				36	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1mA$	40			V
I_R	Reverse Leakage Current	$V_{RWM} = 36V$			5	μA
V_C	Clamping Voltage	$I_{PP} = 1A, t_p = 8/20\mu s$			55	V
C_J	Junction Capacitance	$V_R = 0V, f = 1MHz$			28	pF

Characteristic Curves
Fig.1 ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

Fig.2 ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2


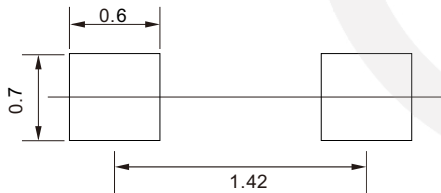
SOD-523 Package Outline

Unit: mm



SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.500	0.770
A1	0.500	0.700
b	0.250	0.380
c	0.070	0.200
D	0.700	0.900
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
θ	7° REF	

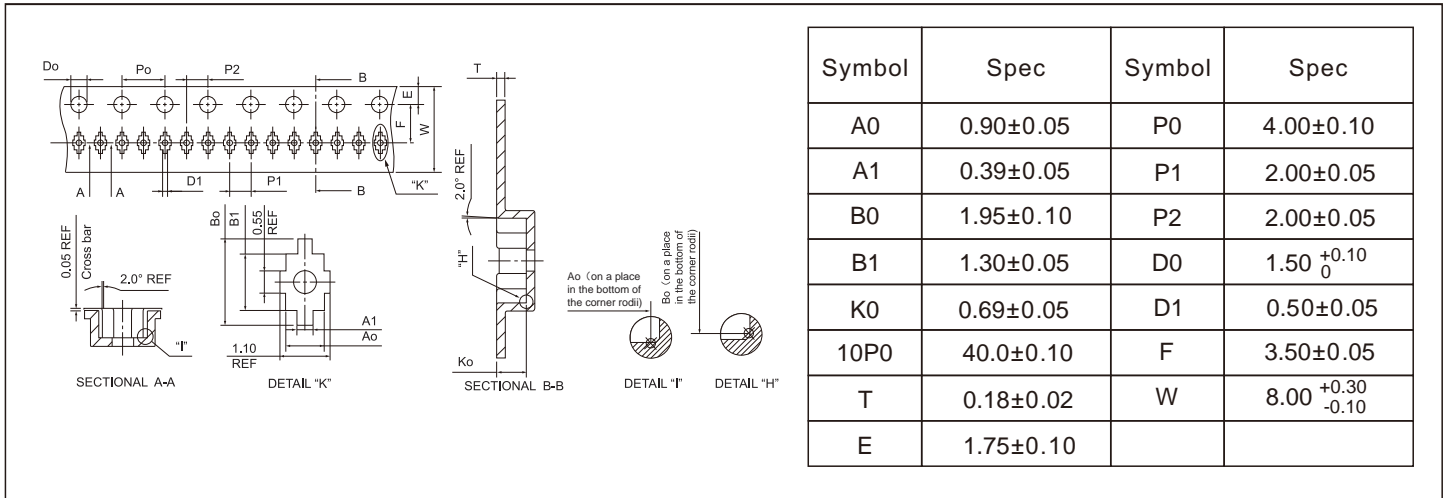
SOD-523 Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05 mm.
 3. The pad layout is for reference purposes only.

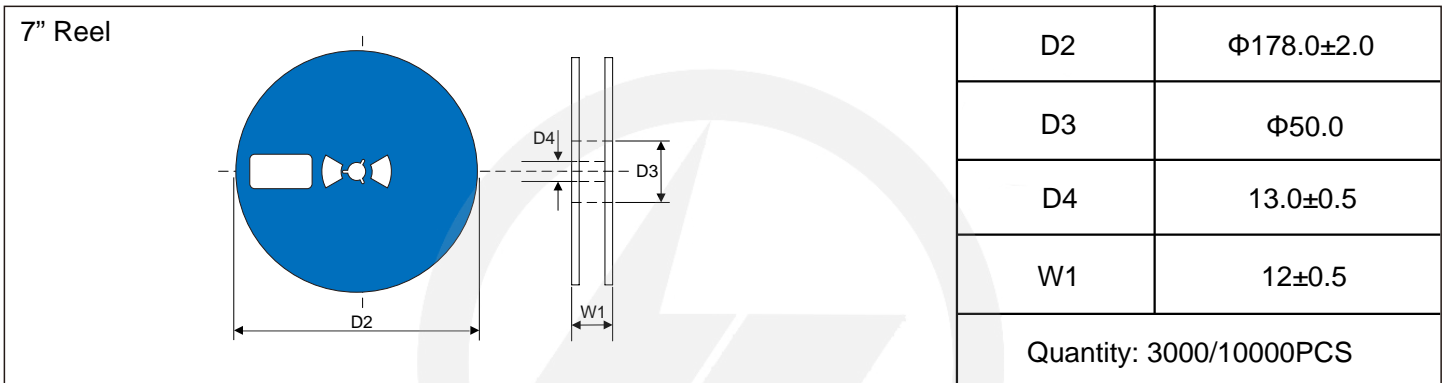
Carrier Tape Dimensions

Unit : mm

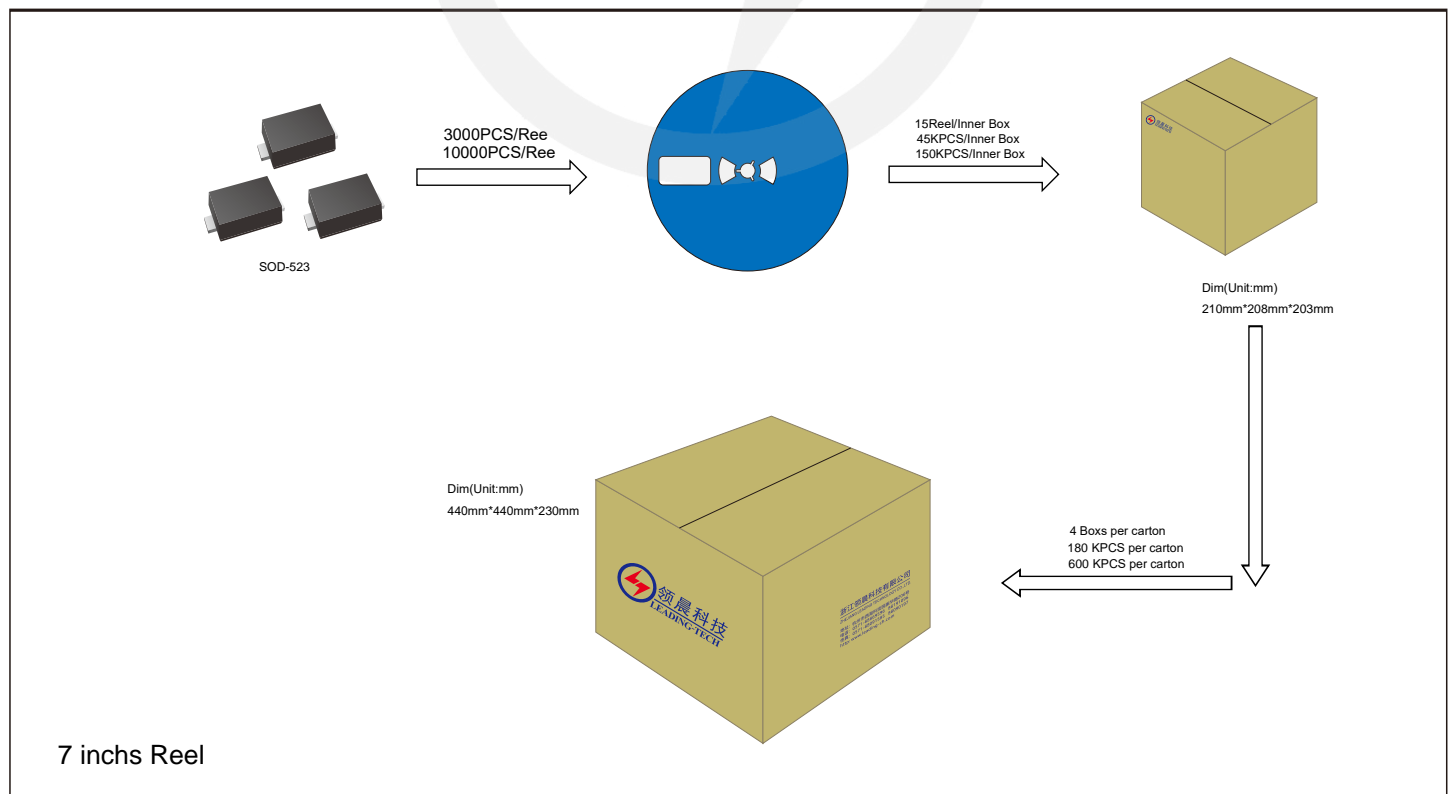


Reel Dimensions

Unit : mm

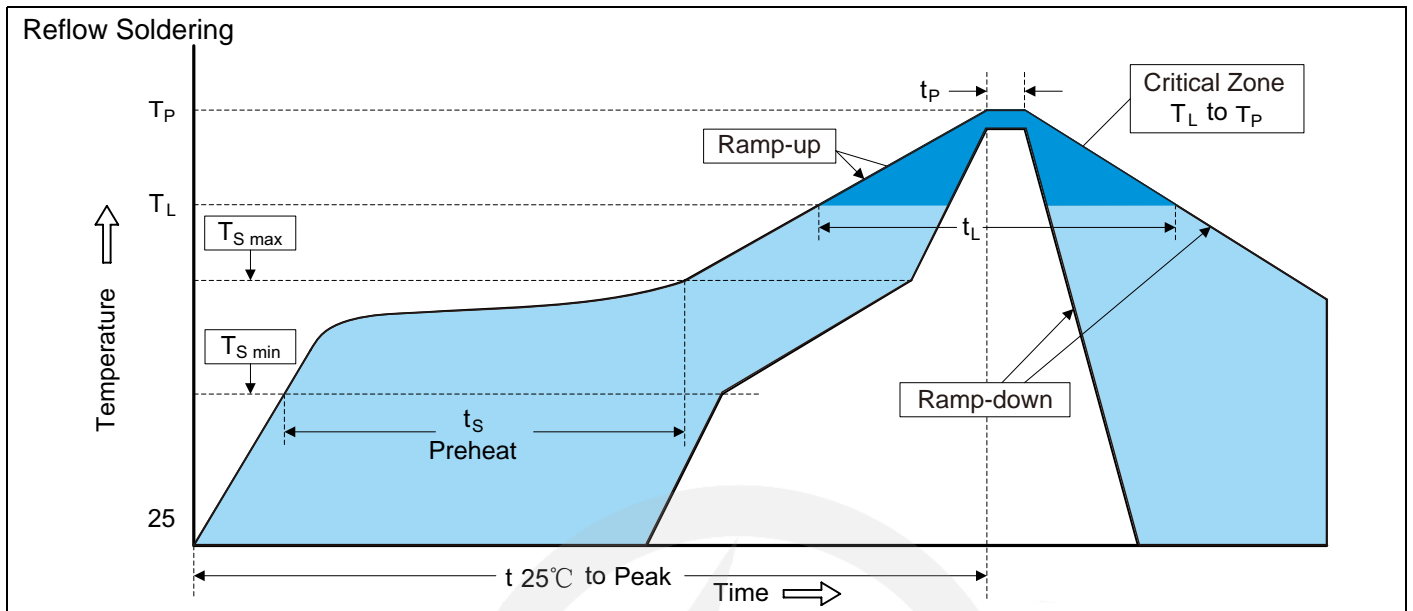


Packaging





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	2024.4.5	2024.4.5	3.0	New File	/	Ding	