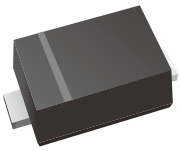
LTE9L05A01L

Transient Voltage Suppressors

Features

- Low Clamping Voltage Of Transient Voltage Suppressor
- ESD Protection, IEC61000-4-2 Level 4
- UL-94 V-0 / Green EMC
- Matte Tin Lead Finish (Pb-Free)
- Lead free in comply with EU RoHS 2011/65/EU directives



Uni-directional

Mechanical Data

- Case:SOD-923
- Polarity: Color band denotes cathode end

Ordering Information

Part Number	Marking	Shipping	Reel
LTE9L05A01L-TR8	9L	8000PCS Tape&Reel	7 inchs

Absolute Maximum Ratings （Ta = 25℃）

Symbol	Parameter	Value	Unit
I_{PP}	Maximum Reverse Peak Pulse Current(t=8/20μs)	7	A
$V_{ESD-Air}$	ESD Voltage IEC61000-4-2 Air	±15	kV
$V_{ESD-contact}$	ESD Voltage IEC61000-4-2 Contact	±8	kV
$V_{ESD-Human\ Body}$	ESD Voltage JESD22-A114-B	16	kV
T_J	Junction Temperature	150	℃
T_{STG}	Storage Temperature	-55 to +150	℃

Electrical Characteristics （Ta = 25 ℃）

Symbol	Parameter	Condition	Min	Typ	Max	Unit
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	I_T = 1mA	5.4	7	8.5	V
I_R	Reverse Leakage Current	V_{RWM} = 5V			1.0	μA
V_F	Forward Voltage	I_F = 10mA		0.9	1.25	V
V_C	Clamping Voltage	I_{PP} =1A,t_P =8/20μs			9.8	V
C_J	Junction Capacitance	V_R = 0V, f = 1MHz		0.5		pF

Characteristic Curves

Fig.1 8×20μs Pulse Waveform

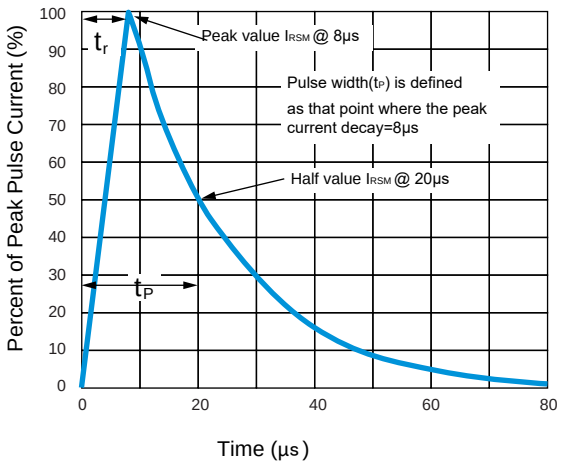
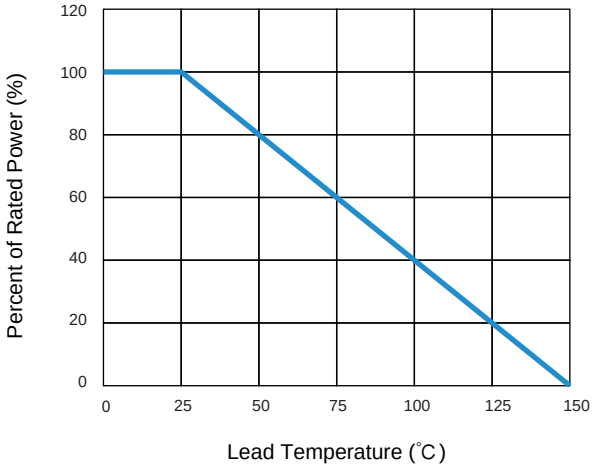
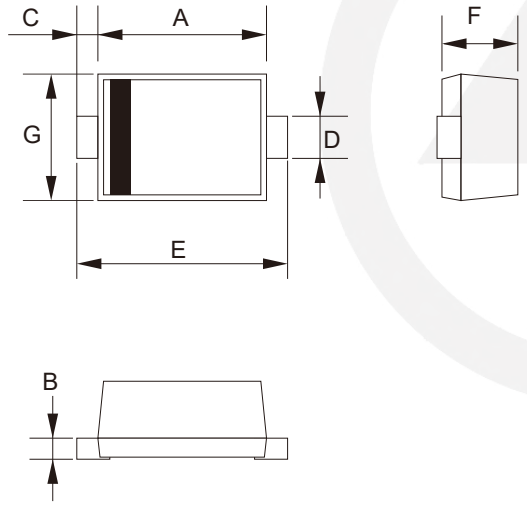


Fig.2 Pulse Derating Cure



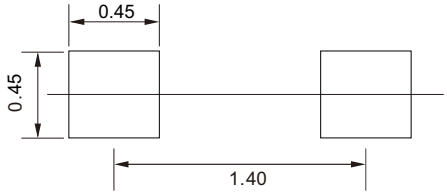
SOD-923 Package Outline



Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.700	0.900
B	0.050	0.200
C	0.050	0.150
D	0.150	0.300
E	0.090	1.100
F	0.340	0.450
G	0.550	0.650

SOD-923 Suggested Pad Layout

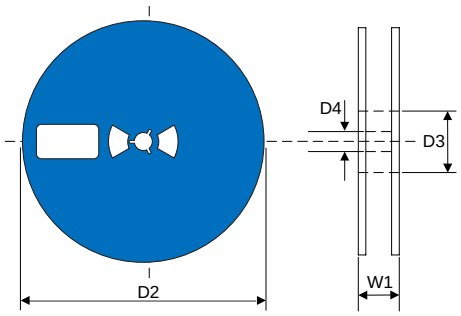


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

Reel Dimensions

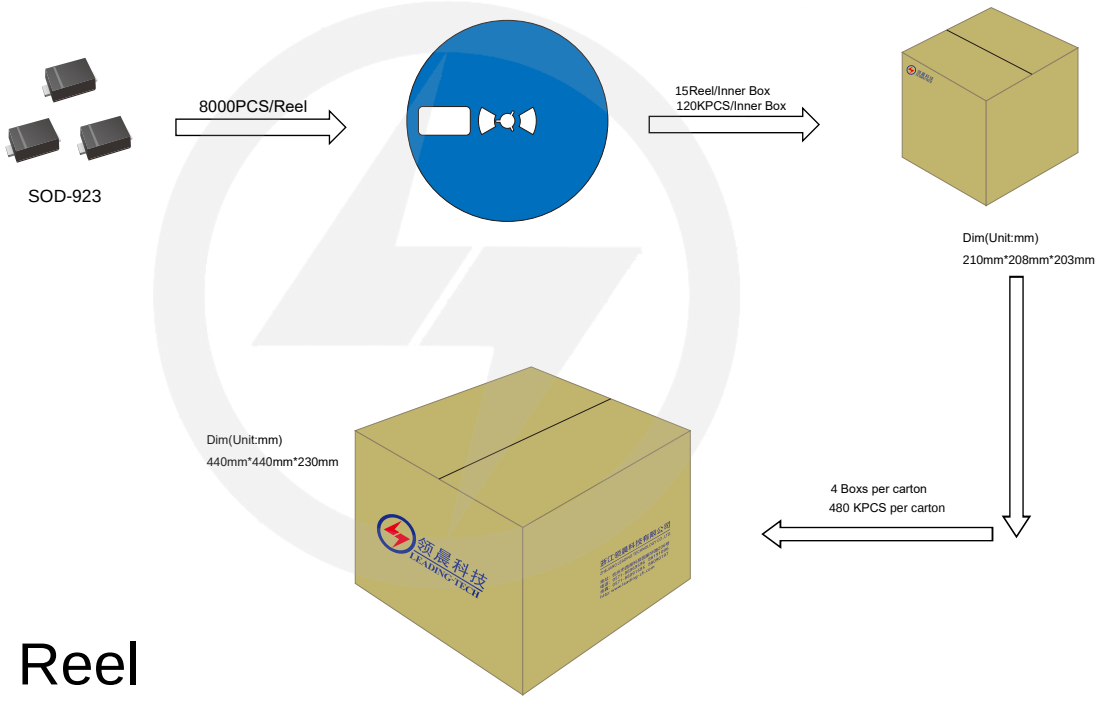
Unit：mm

7” Reel



D2	Φ178.0±2.0
D3	Φ50
D4	13.0±0.5
W1	12±0.5
Quantity: 8000PCS	

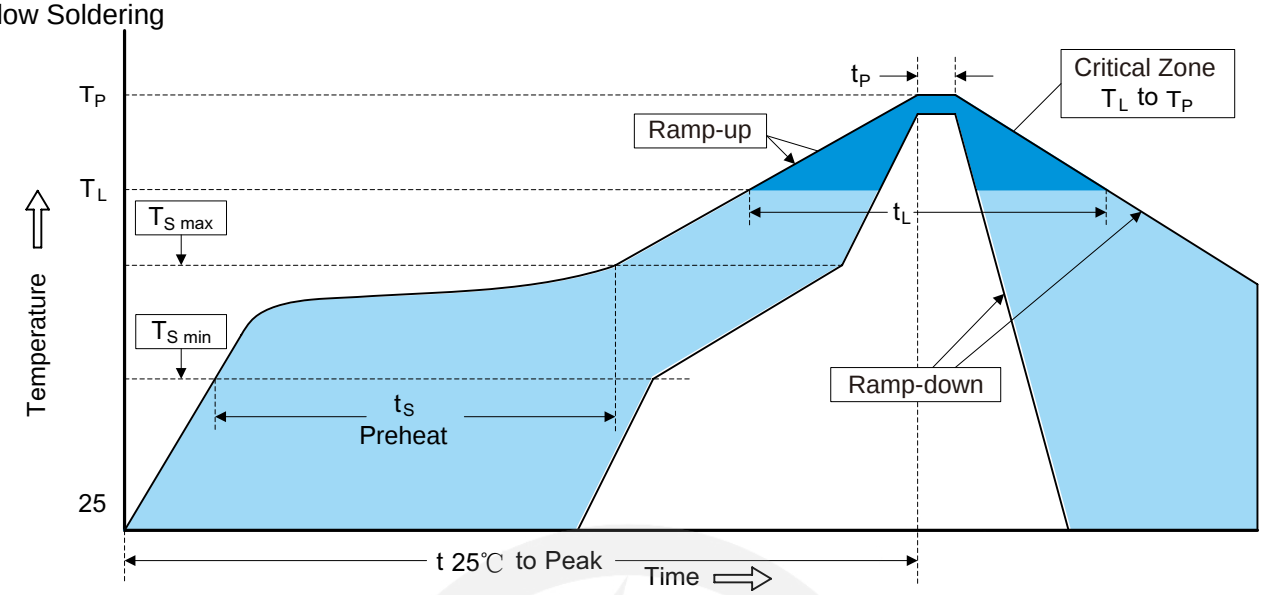
Packaging



7 inchs Reel

Recommended Soldering Conditions

Reflow Soldering



Recommended Conditions

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

Important Notice and Disclaimer

Leading-Tech reverses the right to make changes to this document and its products and specifications at any time without notice.

Customers should obtain and confirm the latest product information and specifications before final design,purchase or use.

Leading-Tech makes no warranty,representation or guarantee regarding the suitability of its products for any particular purpose,not does Leading-Tech assume any liability for application assistance or customer product design.

Leading-tech does not warrant or accept any liability with products which are purchase or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Leading-Tech.

Leading-Tech products are not authorized for use as critical components in life support devices or systems without express written approval of Leading-tech.

Version Update Information

Series NO.	Enactment/Revision Date	Effective Date	Version	Revision content	Revision Reason	Revision Person	Note
01	2024.04.16	2024.04.16	3.0	New File	/	Ding	