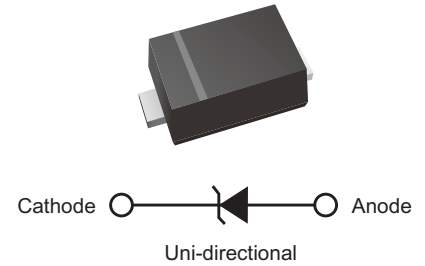


Transient Voltage Suppressors

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



Mechanical Data

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

Ordering Information

Part Number	Marking	Shipping	Reel
LTE9L05A01-TR8	E	8000PCS Tape&Reel	7 inchs

Absolute Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
P_{pk}	Peak Power Dissipation	70	W
$V_{ESD-Air}$	ESD Voltage IEC61000-4-2 Air	±15	kV
$V_{ESD-contact}$	ESD Voltage IEC61000-4-2 Contact	±8	kV
T_J	Junction Temperature	150	°C
T_L	Lead Temperature	260	°C
T_{STG}	Storage Temperature	-55 to +150	°C
P_D	Power Dissipation	100	mW

Electrical Characteristics (Ta = 25 °C)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
V_{RWM}	Reverse Working Peak Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1mA$	6.2			V
I_R	Reverse Current	$V_{RWM} = 5V$			1.0	μA
V_F	Forward Voltage	$I_F = 10mA$			0.9	V
V_C	Clamping Voltage	$I_{PP} = 1A, t_P = 8/20\mu s$			9	V
V_C	Clamping Voltage	$I_{PP} = 5A, t_P = 8/20\mu s$			11	V
C_D	Diode Capacitance	$V_R = 0V, f = 1MHz$		40		pF

Characteristic Curves

Fig.1 8×20μs Pulse Waveform

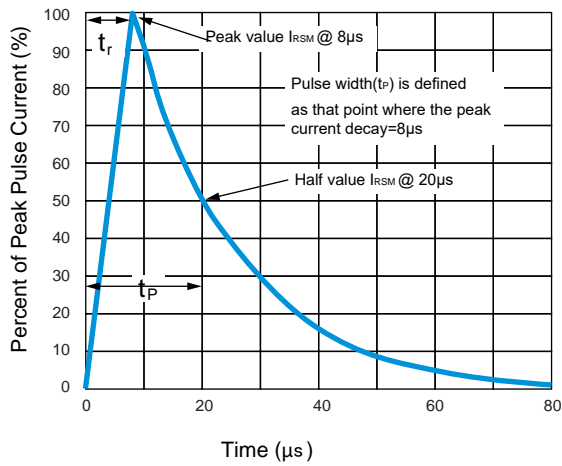
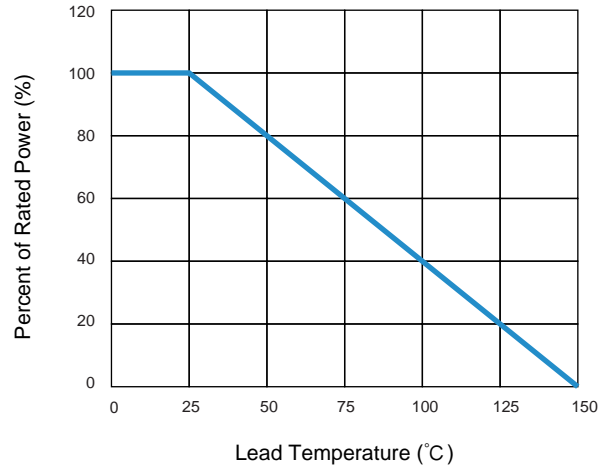
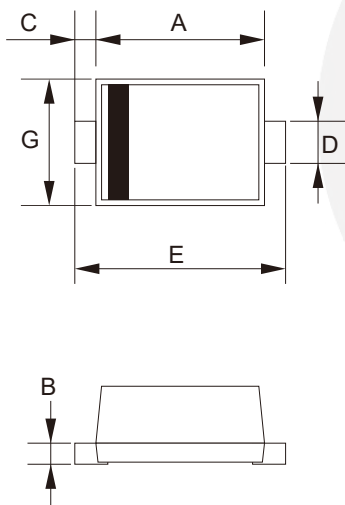


Fig.2 Pulse Derating Curve



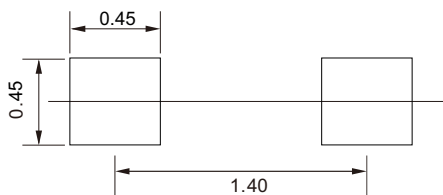
SOD-923 Package Outline



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



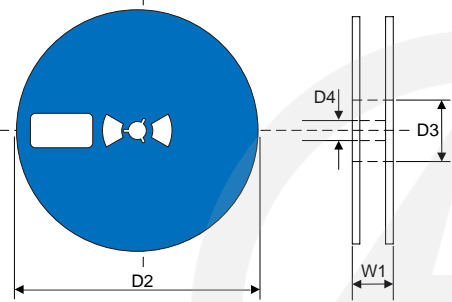
Note:

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

Reel Dimensions

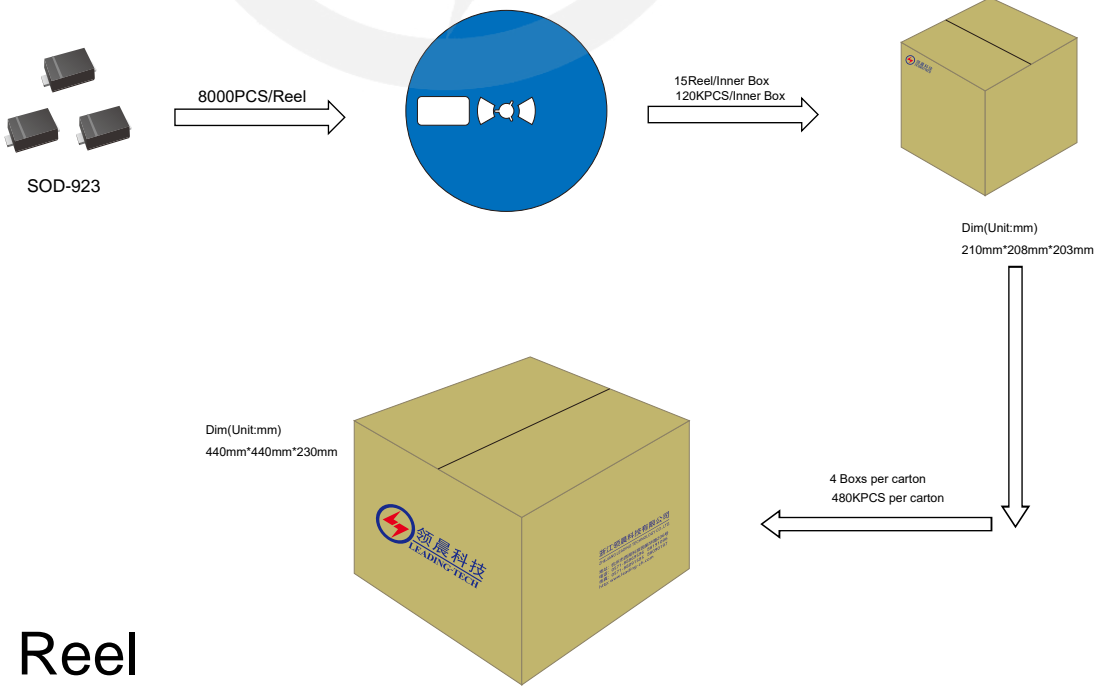
Unit : mm

7" Reel



D2	$\Phi 178.0 \pm 2.0$
D3	$\Phi 50$
D4	13.0 ± 0.5
W1	12 ± 0.5
Quantity: 8000PCS	

Packaging



SOD-923

8000PCS/Reel

15Reel/Inner Box
120KPCS/Inner Box

Dim(Unit:mm)
210mm*208mm*203mm

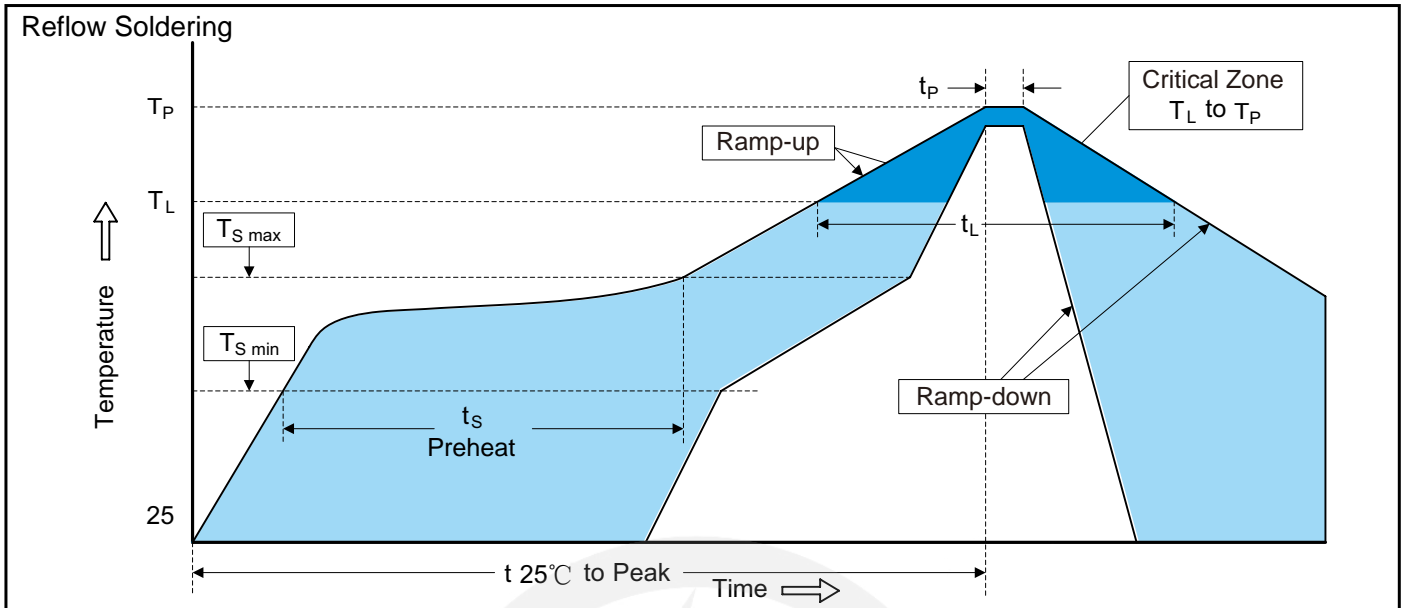
4 Boxes per carton
480KPCS per carton

Dim(Unit:mm)
440mm*440mm*230mm

7 inches Reel



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.

Important Notice and Disclaimer

Leading-Tech reserves 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	