

Transient Voltage Suppressors



Features

- Low Clamping Voltage of Transient Voltage Suppressor
- ESD Protection, IEC61000-4-2 Level 4
- SOD 923 Micro SMD package
- RoHS compliant
- UL-94 V-0 / Green EMC
- Matte Tin Lead finish (Pb-Free)
- Marking: E4 or B

Functional Diagram


Maximum Ratings (T_{amb}=25°C unless otherwise noted)

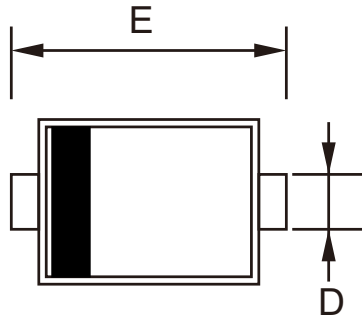
Symbol	Parameter	Value	Units
P _{DK}	Peak Power Dissipation	44	W
I _{PP *1}	Maximum Reverse Peak Pulse Current	2.3	A
V _{ESD-Air}	ESD Voltage IEC61000-4-2 Air	±15	kV
V _{ESD-contact}	ESD Voltage IEC61000-4-2 Contact	±8	kV
T _J	Junction Temperature	150	°C
T _L	Lead Temperature	260	°C
T _{STG}	Storage Temperature	-55 to +150	°C
P _D	Power Dissipation	150	mW

*1 t_p = 8/20 μs

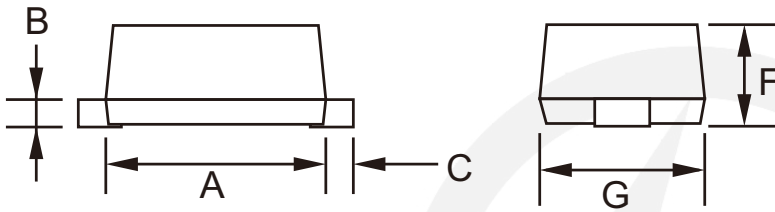
Electrical Characteristics (T_A=25°C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V _{RWM}	Reverse Working Peak Voltage	-			3.3	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	5.0			V
I _R	Reverse Current	V _{RWM} = 3.3V			2.5	μA
V _C	Clamping Voltage	I _{PP} MAX, t _p = 8/20 μs			19	V
C _D	Diode Capacitance	V _R = 0V, f = 1MHz		18		pF

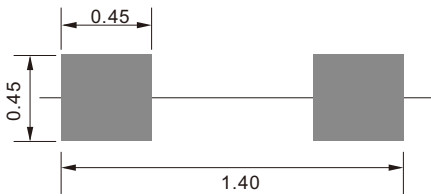
SOD-923 Package Outline Plastic surface mounted package

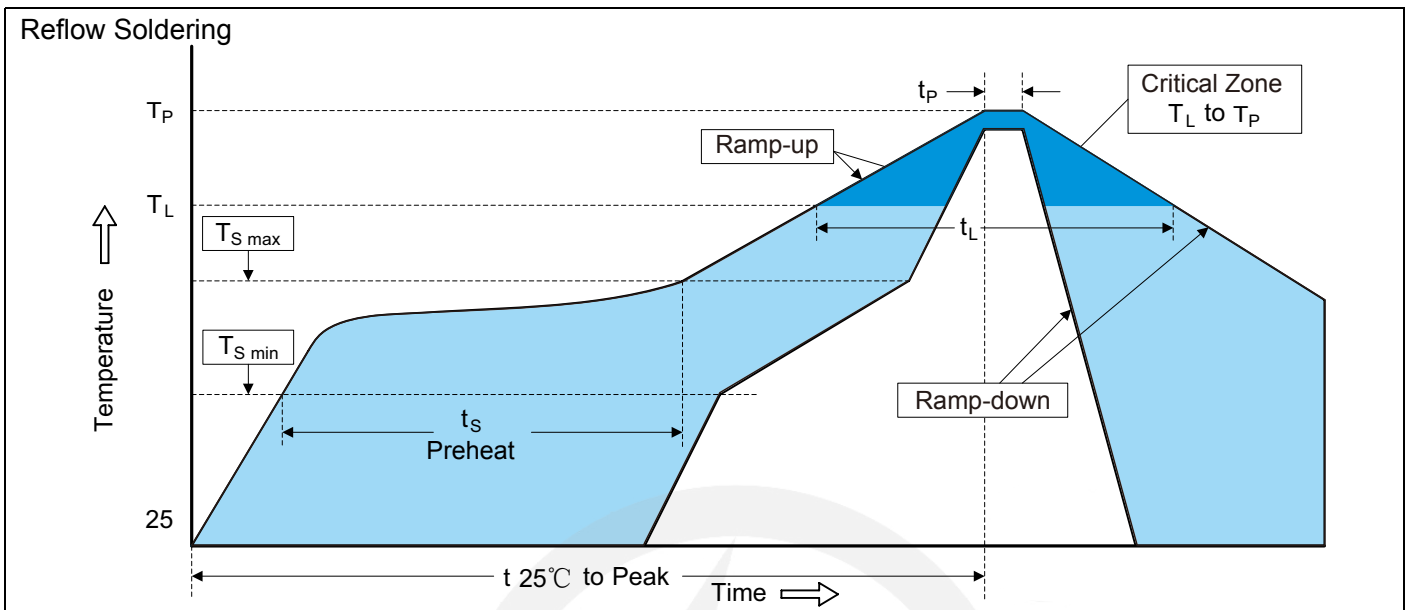


Unit	A	B	C	D	E	F	G
Max.	0.90	0.20	0.15	0.30	1.10	0.45	0.65
Min.	0.70	0.05	0.05	0.15	0.90	0.39	0.55

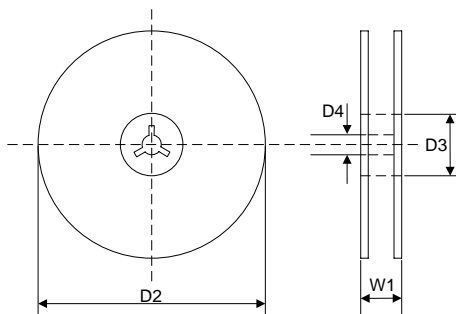


Recommended Solder Pad Footprint Unit:mm



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 ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 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.

7" Reel


D2	$\Phi 178.0 \pm 2.0$
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D3	$\Phi 50.0 \text{ Min.}$
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D4	$\Phi 13.0 \pm 0.5$
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W1	16.0 ± 2.0
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Quantity: 3000PCS