



ESD



TVS



TSS



MOV



GDT



PLED

PESD12VL1BA,115-MS

Product specification

Features

- 200Watts peak pulse power(tp=8/20μs)
Bi-directional configurations
- Solid-state silicon-avalanche technology
- Low leakage current
- Low clamping voltage
- IEC61000-4-2 (ESD): ± 30kV (contact discharge)
± 30kV (air discharge)
- IEC61000-4-4(EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning)6A (8/20μs)

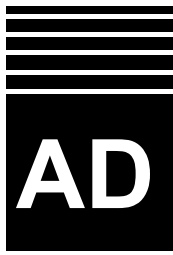
Mechanical Data

- SOD-323 package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Applications

- Microprocessor based equipment
- Personal Digital Assestants(PDA's)
- Portable Instrumentation
- Notebooks, Desktops, and Servers
- Digital Cammeras

Reference News

SOD-323	GRAPHIC SYMBOL	MARKING
		

Absolute Maximum Rating

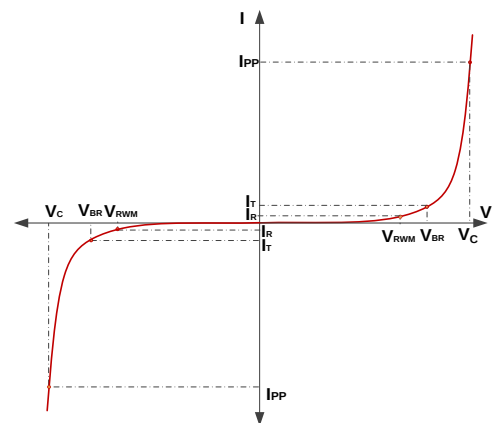
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	200	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (Note1)	I_{pp}	6	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to + 125	$^{\circ}C$

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

Parameter (PIN1 to PIN2)	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				12.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	13.2			
Reverse Leakage Current	I_R	$V_{RWM}=12V, T=25^{\circ}C$			1.0	μA
Clamping Voltage	V_C	$I_{PP}=6A, t_p=8/20\mu s$			35	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		18		pF

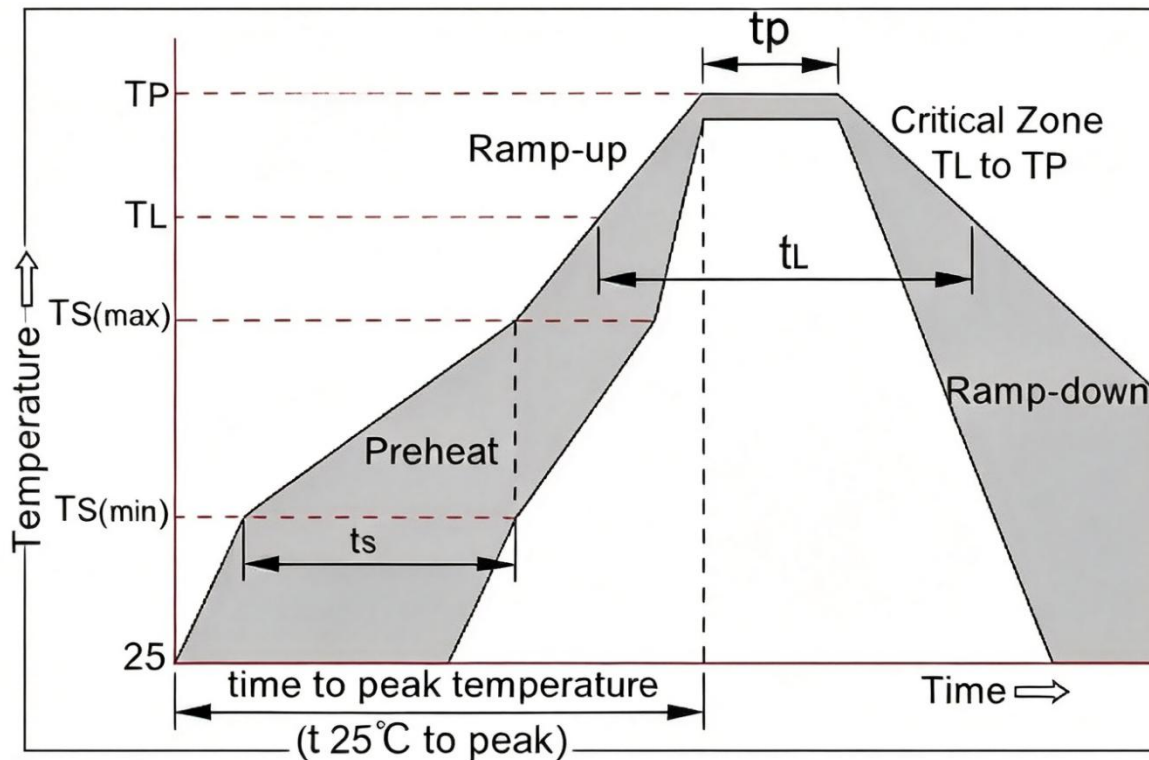
Electrical Parameters($T_A=25^{\circ}C$)

Symbol	Parameter
V_{RWM}	Reverse Stand-Off Voltage
V_{BR}	Breakdown Voltage
I_R	Maximum Reverse Leakage Current
V_T	$I_{PP}=6A, t_p=8/20\mu s$
I_{PP}	Reverse Peak Pluse Current
V_C	Clamping Voltage@ I_{PP}

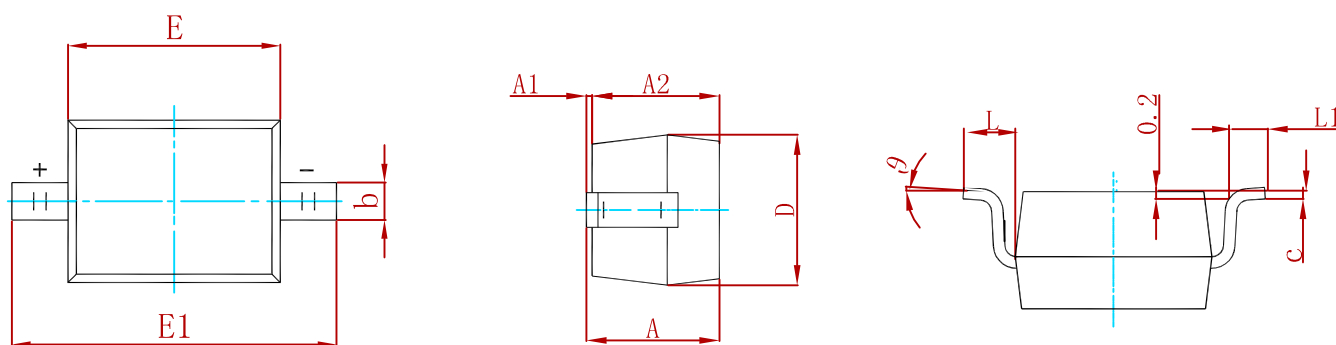


Soldering Parameters

Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L) (Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_p)		8 min. Max
Do not exceed		+260°C

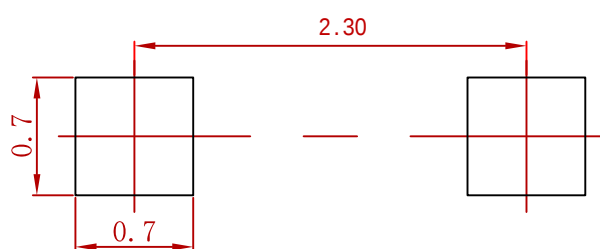


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.050		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.950	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.450	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
PESD12VL1BA,115-MS	SOD-323	3000

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