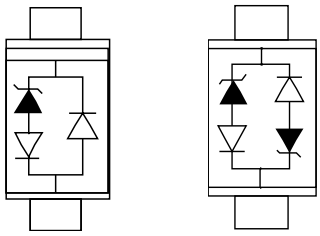
Description

The PESDLC3D Series are low capacitance transient voltage suppressors for high speed data interface that designed to protect sensitive electronics from damage or latch-up due to ESD lightning, and other voltage induced transient events.

All pins are rated to withstand 20kv ESD pulses using the IEC61000-4-2 contact discharge method, which can meet the requirement of level 4.



Feature

- 350W peak pulse power per line (t_P = 8/20μs)
- SOD-323 package
- Replacement for MLV(0805)
- Unidirectional or Bidirectional configurations
- Protects one power or I/O port
- ESD protection > 40 kV
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to IEC61000-4-2(ESD)
  ±15KV(air), ±8KV(contact); IEC61000-4-4 (EFT) 40A (5/50ns)
  IEC61000-4-5(surge): 24A, 8/20μs-Level 2(line-groud)
  & Level 3(line-line)

Applications

- Ethernet – 10/100/1000 Base T
- Cellular phones
- Handheld-Wireless Systems
- PDAs
- USB Interface

Electrical characteristics per line@25℃(unless otherwise specified)

Device	V_{RWM}	I_R @ V_{RWM}	V_{BR} @ 1mA	V_C @I_P =1A	V_C @I_{PP}	C_j @0V，1MHz
	（V）	（μA）	（V）	（V）	（V）	（pF）
PESDLC3D3V3U	3.3	1	4.0	7.0	19@20A	3
PESDLC3D3V3B	3.3	1	4.0	7.0	36@28A	4.5
PESDLC3D5VU	5	1	6.0	9.8	18.3@17A	3
PESDLC3D5VB	5	1	6.0	9.8	32@21A	5
PESDLC3D8VU	8	1	8.5	13.4	18.5@17A	3
PESDLC3D8VB	8	1	8.5	13.4	18.5@17A	3

Device	V_{RWM}	I_R @ V_{RWM}	V_{BR} @ 1mA	V_C @I_P =1A	V_C @I_{PP}	C_j @0V，1MHz
	（V）	（μA）	（V）	（V）	（V）	（pF）
PESDLC3D12VU	12	1	13.3	19	28.6@11A	3
PESDLC3D12VB	12	1	13.3	19	52.8@20A	3
PESDLC3D16VU	16	1	16.7	24	31.8@10A	3
PESDLC3D16VB	16	1	16.7	24	31.8@10A	3
PESDLC3D18VU	18	1	20.0	29	45@8A	3
PESDLC3D18VB	18	1	20.0	29	45@8A	3
PESDLC3D24VU	24	1	26.7	43	56@6A	3
PESDLC3D24VB	24	1	26.7	43	56@6A	3

Absolute maximum rating@25℃

Rating	Symbol	Value	Units
Peak Pulse Power (t_p=8/20μS)	P_{pp}	500	W
Operating Temperature	T_J	-55 to +150	℃
Storage Temperature	T_{STG}	-55 to +150	℃

Typical Characteristics

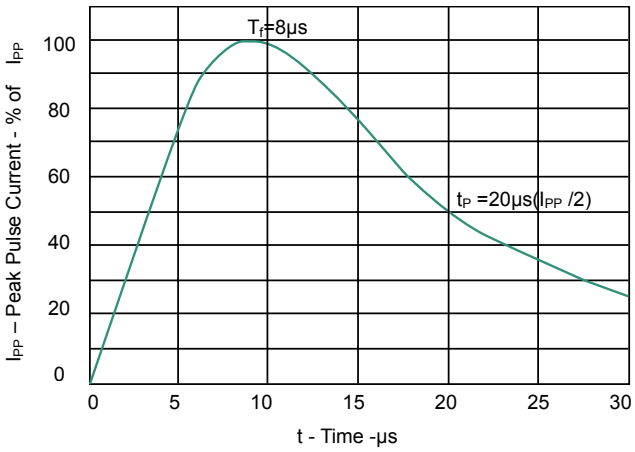


Fig 1.Pulse Waveform

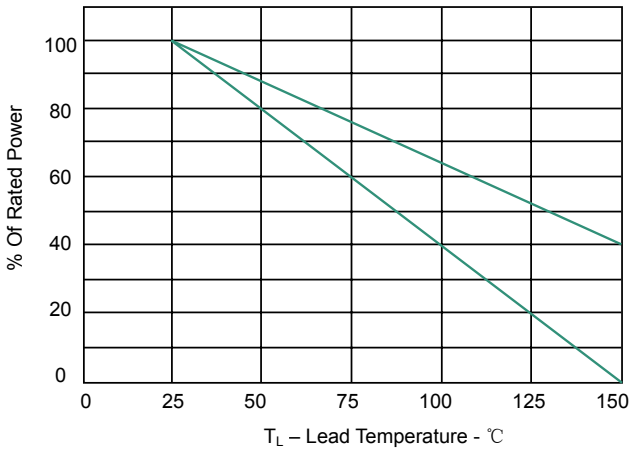
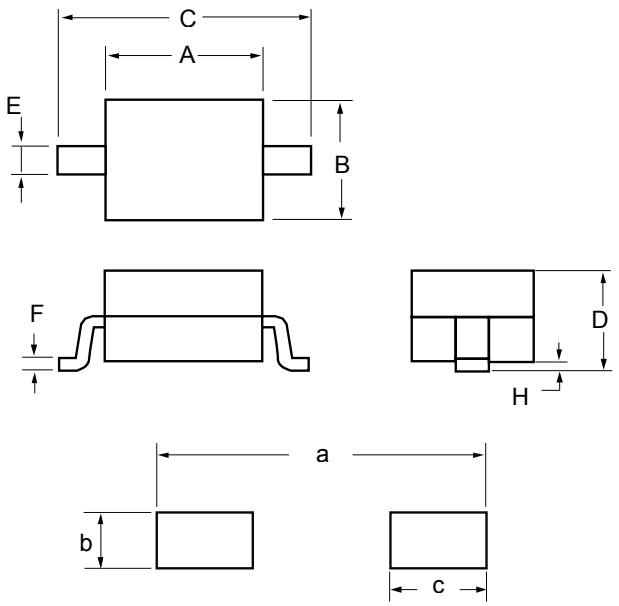


Fig 2.Power Derating Curve

Product dimension

SOD-323 PACKAGE



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.063	0.075	1.60	1.90
B	0.045	0.057	1.15	1.45
C	0.090	0.106	2.30	2.70
D	0.031	0.043	0.80	1.10
E	0.010	0.01	0.25	0.40
F	0.004	0.007	0.09	0.18
H	0.000	0.004	0.00	0.10
a	-	0.118	-	3.00
b	-	0.010	-	0.40
c	-	0.019	-	0.50

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