ESD24V88D-ULC

ROHS

Transient Voltage Suppressors for ESD Protection

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Description

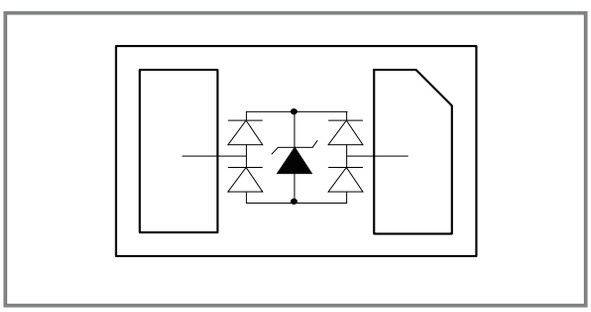
The ESD24V88D-ULC is ultra low capacitance TVS designed to protect high speed data interfaces. This series has been specifically designed to protect sensitive components which are connected to high-speed data and transmission lines from over-voltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and EFT (electrical fast transients).



Features

- 45 Watts Peak Pulse Power per Line (tp=8/20μs)
- Protects One Bidirectional I/O Line
- Low Clamping Voltage
- Low Capacitance
- Working Voltages : 24V
- IEC 61000-4-4 (EFT): 40A (5/50ns)
- IEC 61000-4-5 (LIGHTNING) : 1A (8/20μs)
- IEC 61000-4-2 (ESD): ±15kV (air discharge)
  ±8kV (contact discharge)

Functional Diagram



Applications

- Cell Phone Handsets and Accessories
- RF Port
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Industrial Controls
- Peripherals

Mechanical Data

- SOD-882/DFN1006 (1.0x0.6x0.5mm) Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 0.5 Milligrams (Approximate)
- Lead Finish : Lead Free

Mechanical Characteristics

Parameter	Symbol	Value	Units
Peak Pulse Power (tp=8/20μs waveform)	P_{PP}	45	Watts
Lead Soldering Temperature	T_L	260 (10 sec.)	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C
Operating Junction Temperature Range	T_J	-40 to +125	°C

Electrical Characteristics(@ 25℃ Unless Otherwise Specified)

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Working Voltage	V_{RWM}	--	--	--	24	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	26.4	--	--	V
Reverse Leakage Current	I_R	V_{RWM}=24V, T=25°C	--	--	0.1	μA
Clamping Voltage	V_C	I_{PP}=1A, T_P=8/20μs	--	--	45	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	--	0.25	--	pF

Characteristic Curves

Fig1. 8/20μs Pulse Waveform

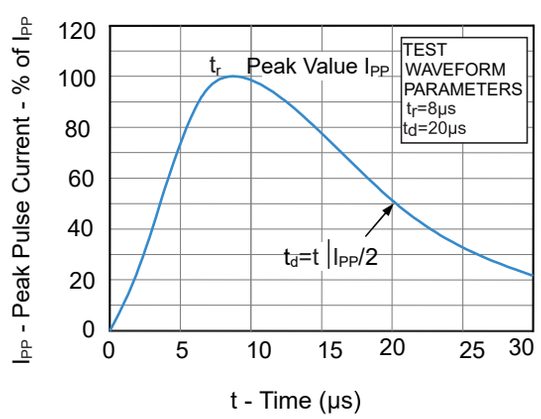


Fig2. Power Derating Curve

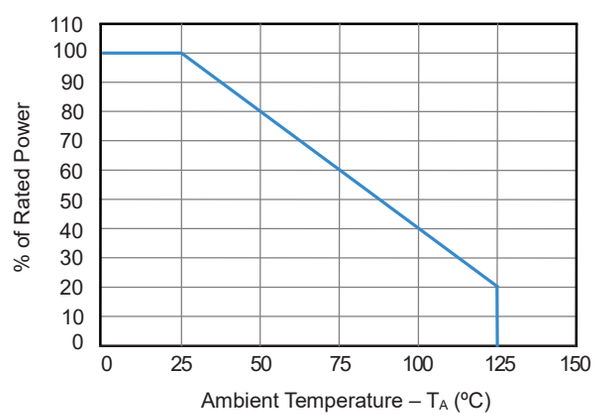
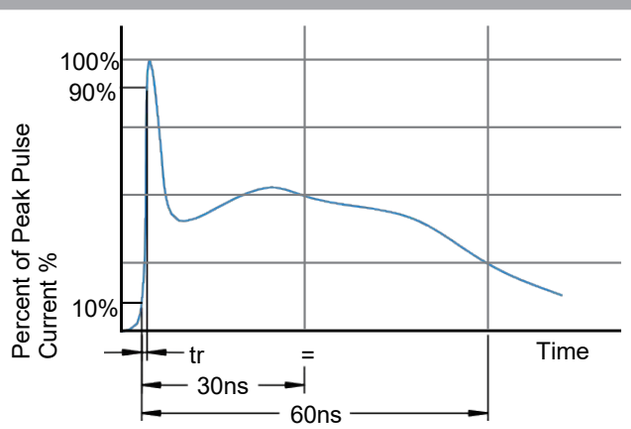
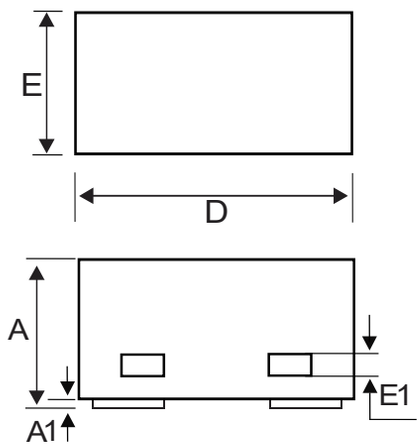


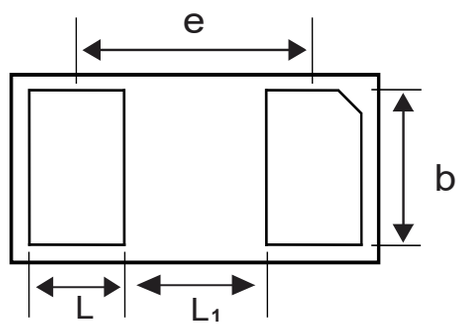
Fig3. ESD Pulse Waveform (according to IEC 61000-4-2)



SOD-882/DFN1006 Package Outline & Dimensions

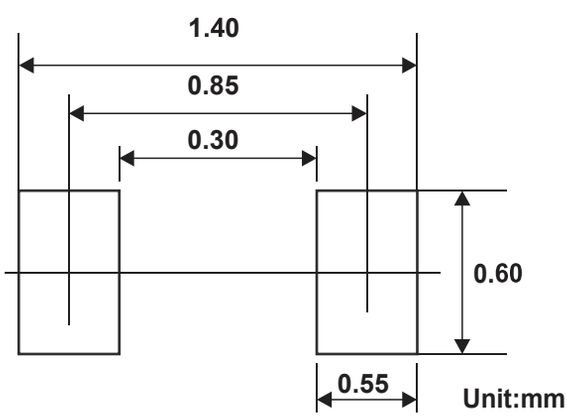
SOD-882/DFN1006





Symbol	Millimeters		
	Min.	Nom	Max.
A	0.450	0.500	0.550
A1	0	0.020	0.050
E1	0.013	0.063	0.113
D	0.900	1.000	1.100
E	0.500	0.600	0.700
e	0.65BSC		
L	0.150	0.250	0.350
b	0.400	0.500	0.600
L1	0.300	0.400	0.500

Suggested PAD Layout



Ordering Information

Device	Marking	Package	Quantity	Reel Size
ESD24V88D-ULC	HF	SOD-882/DFN1006	10,000pcs/Reel	7 inch

ROHS

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