

Transient Voltage Suppressors for ESD Protection

ESDXXV88D-A Series

Description

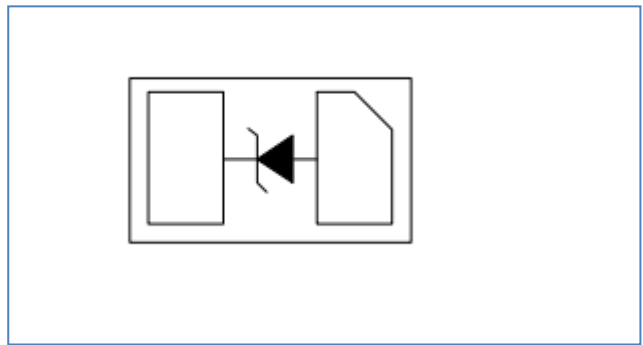
The ESDXXV92D-C Series is designed to protect voltage sensitive Components from ESD and transient voltage events. Excellent Clamping capability, low leakage, and fast response time, Make these part ideal for ESD protection on designs where Board space is at a premium.



Feature

- ◆ 288~400 Watts Peak Pulse Power per Line (tp=8/20μs)
- ◆ Protects One unidirectional I/O Line
- ◆ Low clamping voltage
- ◆ Working voltages : 3.3V ~ 36V
- ◆ Low leakage current
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)

Functional Diagram



Applications

- ◆ Cell Phone Handsets and Accessories
- ◆ Microprocessor based equipment
- ◆ Personal Digital Assistants (PDA's)
- ◆ Notebooks, Desktops, and Servers
- ◆ Portable Instrumentation
- ◆ Peripherals
- ◆ USB Interface

Mechanical Data

- ◆ SOD-882/DFN1006 Package (1.0 x 0.6 x 0.5mm)
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Weight: 0.5 Milligramms
- ◆ Lead Finish : Lead Free

Mechanical Characteristics

Symbol	Parameter	Value	Units
Ppp	Peak Pulse Power (tp=8/20μs waveform)	288-400	Watts
TL	Lead Soldering Temperature	260 (10 sec.)	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _J	Operating Junction Temperature Range	-55 to +150	°C

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Electrical Characteristics(@25°C Unless Otherwise Specified)

Part Number	Device Marking Code	Stand-Off Voltage VRMW (V)	Breakdown Voltage VBR(Min)	Test Current IT (mA)	V C@1A (V) Max	Vc		Maximum Reverse Leakage I R @V RWM (uA)	Typ Junction Capacitance (pF)
						(Max.)	(@A)		
ESD3.3V88D-A	N3	3.3	4.0	1.0	6.5	12.5	32.0	20.0	320.0
ESD05V88D-A	NA	5.0	6.0	1.0	8.2	15.0	26.0	5.0	230.0
ESD7.5V88D-A	NC	7.5	8.0	1.0	9.5	16.5	25.0	1.0	150.0
ESD12V88D-A	NF	12.0	13.2	1.0	16.0	23.0	16.0	1.0	120.0
ESD15V88D-A	NG	15.0	16.5	1.0	18.3	27.0	12.0	1.0	80.0
ESD18V88D-A	ND	18.0	18.7	1.0	23.0	32.0	11.0	1.0	65.0
ESD24V88D-A	NK	24.0	25.5	1.0	32.0	48.0	7.5	1.0	50.0
ESD36V88D-A	NN	36.0	40.0	1.0	53.0	72.0	4.0	1.0	40.0

Characteristics Curves

Fig1: 8/20μs Pulse Waveform

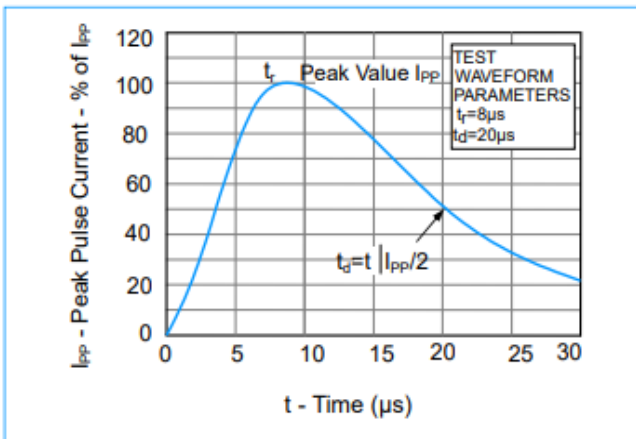


Fig2. Power Rating Derating Curve

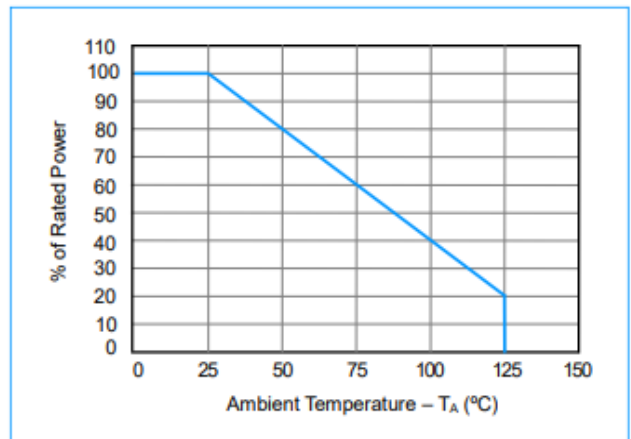
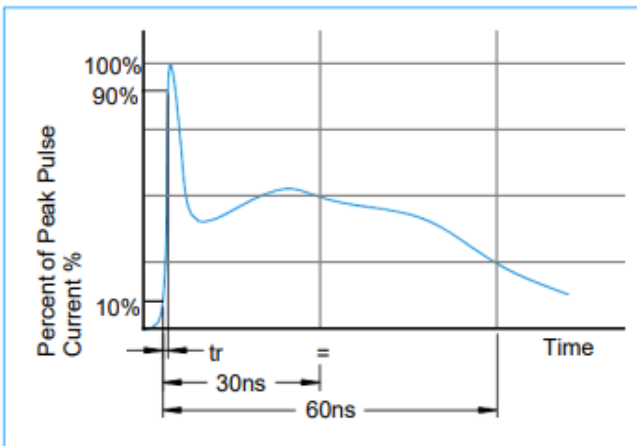


Fig3. ESD Pulse Waveform (according to IEC61000-4-2)

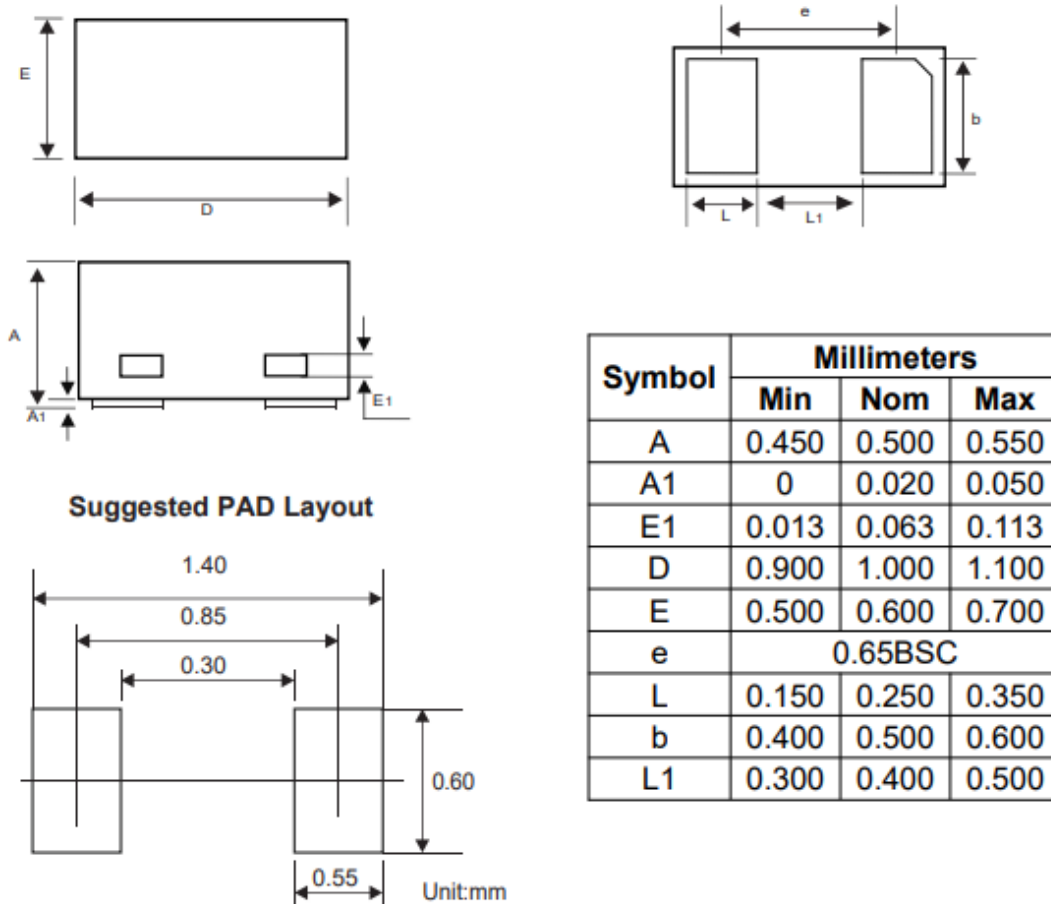


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SOD-882/DFN 1006 Package Outline & Dimensions

SOD-882/DFN1006



Ordering Information

Device	Marking	Package	Quantity	Reel Size
ESDXXV88D-A Series	--	SOD-882/DFN1006	12,000pcs/Reel	7 inch