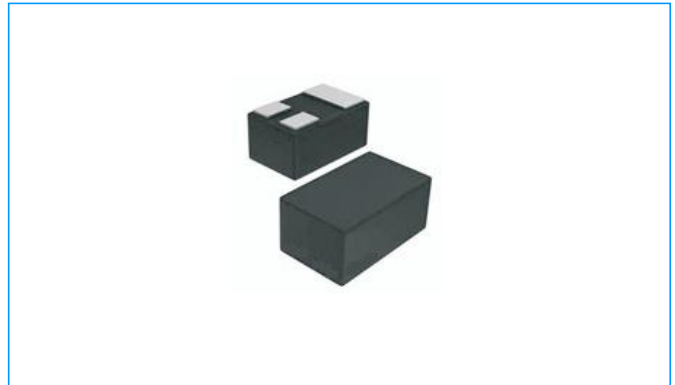


Transient Voltage Suppressors for ESD Protection

ESD05V88D-2LA

Description

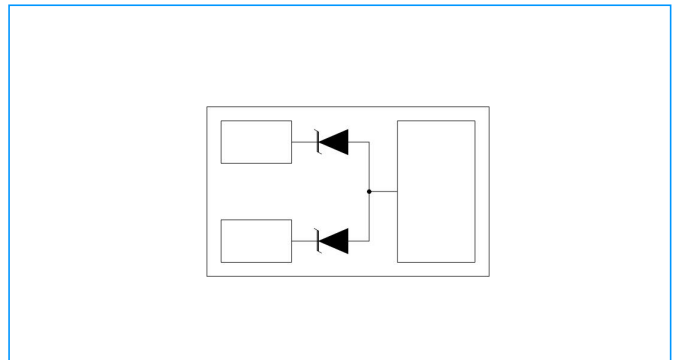
The ESD05V88D-2LA is low capacitance TVS arrays designed to protect high speed data interfaces. This series has been specifically designed to protect sensitive components which are connected to high-speed data and transmission lines from over-voltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and EFT (electrical fast transients).



Feature

- ◆ 75 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- ◆ Protects Tow High Speed lines
- ◆ Low clamping voltage
- ◆ Working voltages : 5.0V
- ◆ Low leakage current
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ IEC61000-4-5 (LIGHTING) 4A (8/20 μs)
- ◆ IEC61000-4-2(ESD): $\pm 17kV$ (air discharge)
 $\pm 15kV$ (contact discharge);

Functional Diagram



Applications

- ◆ Cellular Handsets & Accessories
- ◆ Notebooks & Handhelds
- ◆ Portable Instrumentation
- ◆ LVDS Interfaces
- ◆ Peripherals
- ◆ Digital cameras
- ◆ CCD Camera Lines
- ◆ Automobile Applications

Mechanical Data

- ◆ DFN1006P3 (1.0x0.6x0.5mm) Package
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Weight 0.5 Milligrams (Approximate)
- ◆ Lead Finish : Lead Free

Mechanical Characteristics

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power ($t_p=8/20\mu s$ waveform)	75	Watts
T_L	Lead Soldering Temperature	260 (10 sec.)	$^{\circ}C$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}C$
T_J	Operating Junction Temperature Range	-40 to +125	$^{\circ}C$

Transient Voltage Suppressors for ESD Protection

ESD05V88D-2LA

Electrical Characteristics (@ 25°C Unless Otherwise Specified)

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Working Voltage	V_{RWM}	--	--	--	5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$;	6.0	--	--	V
Reverse Leakage Current	I_R	$V_{RWM}=5.0V, T=25^{\circ}C$;	--	--	1.0	μA
Positive Clamping Voltage	V_C	$I_{PP}=1A, T_P=8/20\mu s$;	--	--	12.0	V
		$I_{PP}=4A, T_P=8/20\mu s$;	--	--	19.0	V
Junction capacitance	C_J	$V_R=0V, f=1MHz$;	--	0.45	--	pF

Characteristic Curves

Fig1. 8/20 μs Pulse Waveform

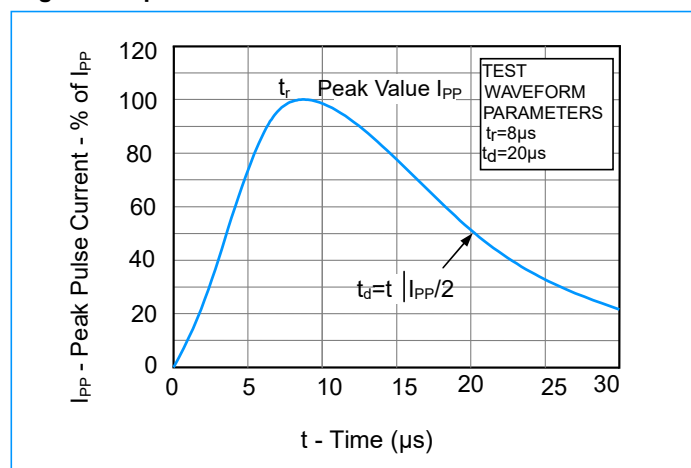


Fig2. Power Rating Derating Curve

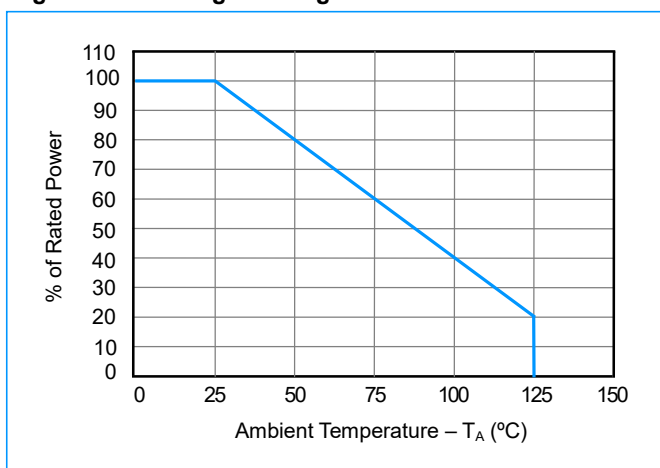


Fig3. Clamping Voltage vs. Peak Pulse Current

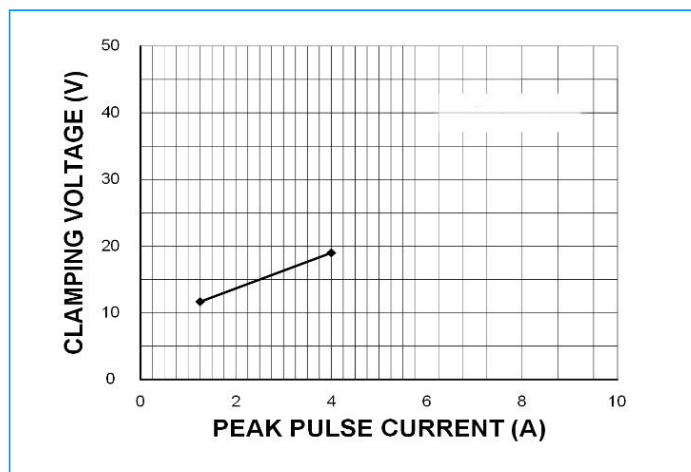
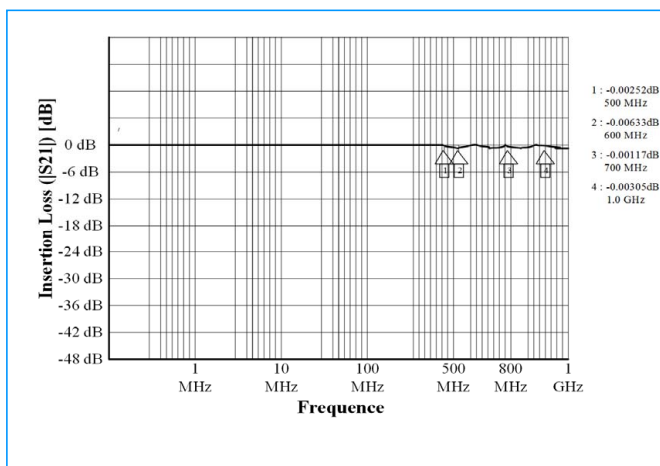


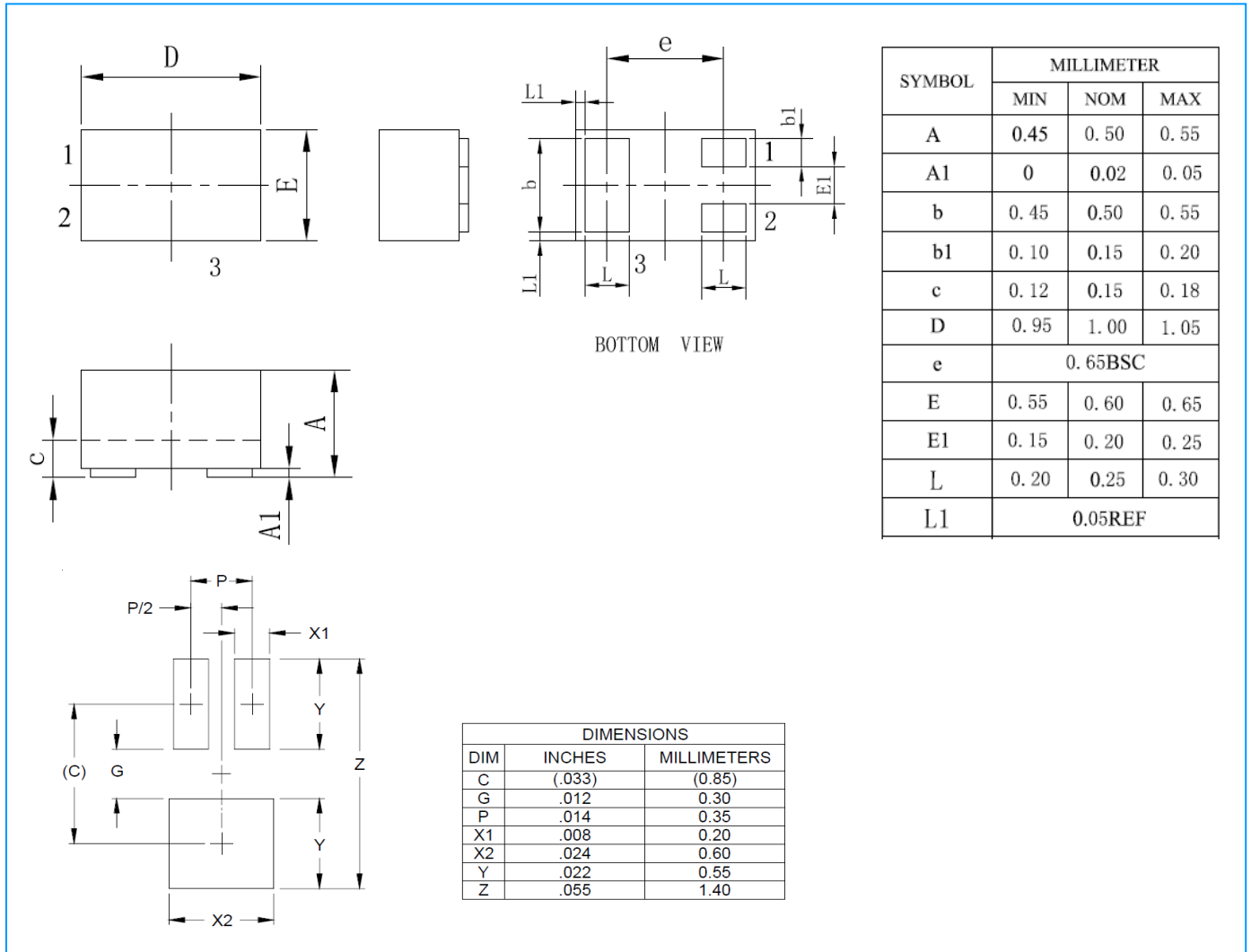
Fig4. Insection Loss (S21)



Transient Voltage Suppressors for ESD Protection

ESD05V88D-2LA

DFN1006P3 Package Outline & Dimensions



Ordering Information

Device	Marking	Package	Quantity	Reel Size
ESD05V88D-2LA	PD	DFN1006P3	10,000pcs/Reel	7 inch