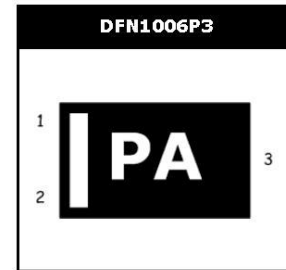


Transient Voltage Suppressors for ESD Protection

ESDXXV88D-2A Series

Description

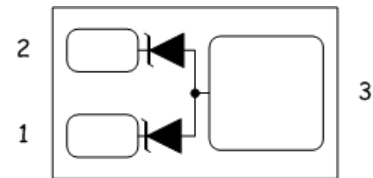
The ESDXXV88D-2A series is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its small size, it is suited for signal port and board space speed transmission is very small places, such as Ethernet, mobile phones, MP3 players, digital cameras and other portable.



Feature

- ◆ 24 ~ 38 Watts Peak Pulse Power per Line (tp=8/20μs)
- ◆ Protects two I/O line (Unidirectional)
- ◆ Low clamping voltage
- ◆ Working voltages: 3.3V, 5V and 12V
- ◆ Low leakage current
- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ◆ IEC61000-4-4 (EFT) 40A (5/50ns)

Functional Diagram



Applications

- ◆ Cellular Handsets & Accessories
- ◆ Microprocessor based equipment
- ◆ Notebooks & Handhelds
- ◆ Notebooks, Desktops, and Servers
- ◆ Peripherals
- ◆ Portable Instrumentation
- ◆ USB Interface

Mechanical Data

- ◆ DFN1006P3 (1.0x0.6mm) Package
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Weight 0.6 Milligrams (Approximate)
- ◆ Lead Finish : Lead Free

Mechanical Characteristics

Symbol	Parameter	Value	Units
P _{PP}	Peak Pulse Power (tp=8/20μs waveform)	24 ~ 38	Watts
T _L	Lead Soldering Temperature	260 (10 sec.)	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _J	Operating Junction Temperature Range	-40 to +125	°C

Transient Voltage Suppressors for ESD Protection

ESDXXV88D-2A Series

Electrical Characteristics (@ 25°C Unless Otherwise Specified)

Part Number	Device Marking Code	Stand-Off Voltage V_{RWM} (V)	Breakdown Voltage V_{BR}	Test Current I_T (mA)	$V_C@1A$ (V) Max.	V_C		Maximum Reverse Leakage I_R @ V_{RWM} (uA)	Typ Junction Capacitance (pF)
						(Max.)	(@A)		
ESD3.3V88D-2A	PA	3.3	4.5	1.0	8.5	12	2.0	5.0	9
ESD05V88D-2A	PB	5.0	6.0	1.0	10	15	2.0	0.5	8
ESD12V88D-2A	PC	12.0	13.3	1.0	17	19	2.0	0.5	6

Characteristic Curves

Fig1. 8/20μs Pulse Waveform

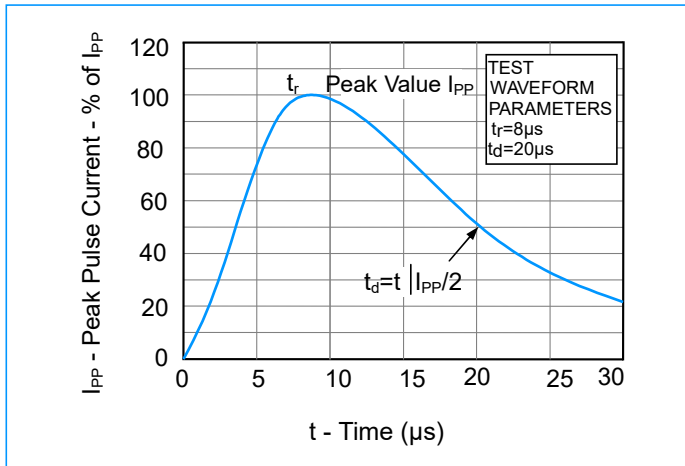


Fig2. Power Rating Derating Curve

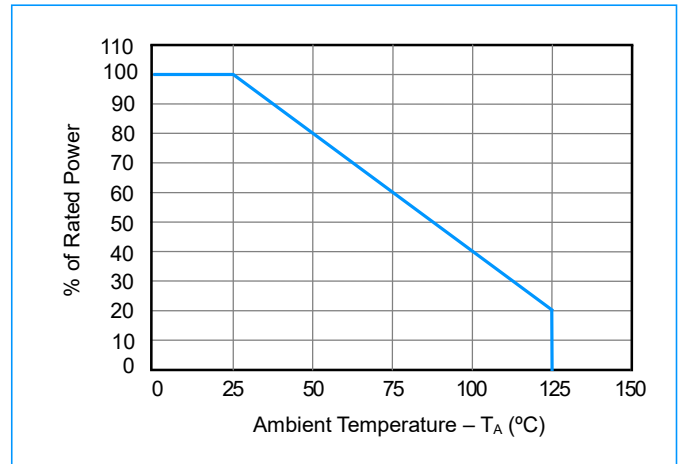
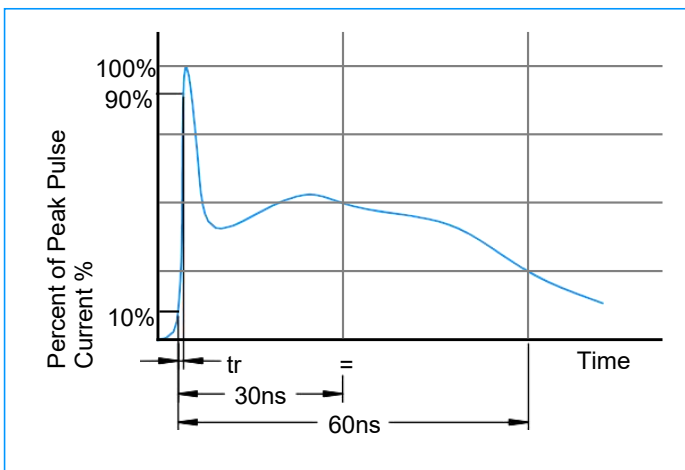


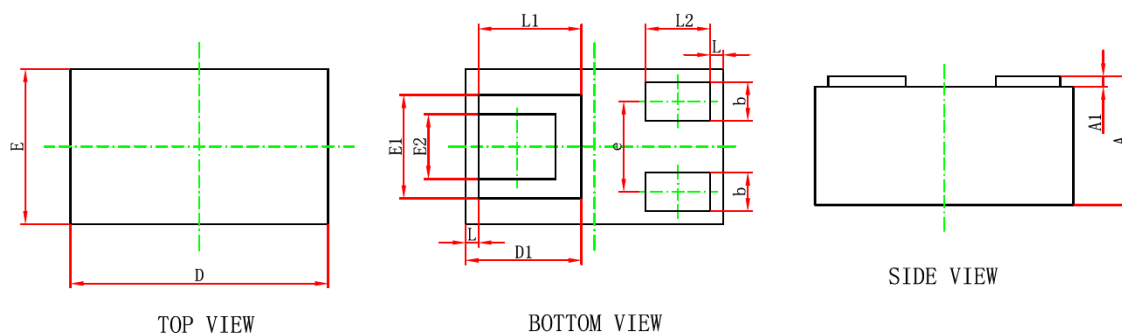
Fig3. ESD Pulse Waveform (according to IEC61000-4-2)



Transient Voltage Suppressors for ESD Protection

ESDXXV88D-2A Series

DFN1006P3 Package Outline & Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.350/0.450	0.450/0.550	0.014/0.018	0.018/0.022
A1	0.010	0.090	0.000	0.004
D	0.950	1.050	0.037	0.041
E	0.550	0.650	0.022	0.026
D1	0.450 REF.		0.017 REF.	
E1	0.400 REF.		0.016 REF.	
E2	0.200	0.300	0.008	0.012
b	0.100	0.200	0.004	0.008
e	0.300	0.400	0.012	0.016
L	0.000	0.050	0.000	0.002
L1	0.250	0.350	0.010	0.014
L2	0.200	0.300	0.008	0.012

Ordering Information

Device	Package	Quantity	Reel Size
ESDXXV88D-2A Series	DFN1006P3	10,000pcs/Reel	7 inch