

### DESCRIPTION

The EBXXVD2 Series is designed to protect voltage sensitive components that require low capacitance from ESD and transient voltage events. The EBXXVD2 are low capacitance Transient Voltage (TVS) Design Bidirectional device that is to protect sensitive electronics from damage or latch-up due to ESD. They are designed for use in applications where board space is at a premium.

EBXXVD2 may be used to meet the immunity requirements of IEC 61000-4-2, level 4. The small DFN1006-2, package makes them ideal for use in portable electronics such as cell phone, PDA's, notebook computers, USB ports and ADSL.

*EBXXVD2-TRG ROHS Compliant This is Halogen Free*

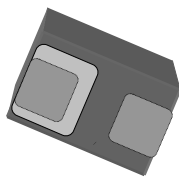
### IEC COMPATIBILITY

Transient protection for high-speed data lines to

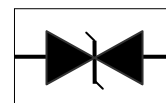
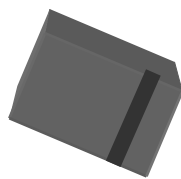
- IEC 61000-4-2 (ESD) ±30KV (Air)**
- ±30KV (contact)**
- IEC 61000-4-4 (EFT) 40A (5/50ns)**



### PIN CONFIGURATION



DFN1006-2  
Top View



Bi-Directional  
TVS

### ABSOLUTE MAXIMUM RATINGS ( @ 25°C Unless otherwise specified )

Symbol	Parameter	Typical	Unit
P <sub>PP</sub>	Peak Pulse Power (tp=8/20µs waveform)	100	W
T <sub>L</sub>	Lead Soldering Temperature	260(10 sec.)	°C
T <sub>J</sub>	Operation Temperature Range	-55 to 150	°C
T <sub>STG</sub>	Storage Temperature Range	-55 to 150	°C

### FEATURE

- ◆ 100Watts Peak Pulse Power per line(tp=8/20µs)
- ◆ Protects One Birectional I/O Line
- ◆ Low clamping voltage
- ◆ Working Voltage : 3.3V, 5V, 8V
- ◆ Low leakage current
- ◆ Ultra-small package DFN1006-2 (1.0x0.6x0.5mm)
- ◆ Molding Compound Flammability Rating:UL 94V-0
- ◆ Qualified max reflow temperature 260°C

### APPLICATIONS

- ◆ Cell phone Handsets & Accessories
- ◆ PDAs
- ◆ Notebooks, Servers and Desktops
- ◆ Portable Instrumentation
- ◆ Microprocessor based equipment
- ◆ Peripherals

## ELECTRICAL CHARACTERISTICS ( @ 25°C Unless otherwise specified )

Parts	V <sub>RWM</sub> (V)	V <sub>B</sub> (V)		I <sub>T</sub> (mA)	V <sub>c</sub> @1A	V <sub>c</sub>	I <sub>PP</sub>	I <sub>R</sub> (μA)	C <sub>T</sub> (pF)
	Max	Min	Max	Max	Max	Max	A	Max	Max
EB33VD2	3.3	3.5	4.73	1	7	<15	7	1	10
EB05VD2	5	6.12	7.48	1	9.8	<17.5	6	1	10
EB08VD2	8	8.5	8.73	1	17.5	<20	1	1	7

## PART NUMBER INFORMATION

<p><b>E B XXV D2 - TR G</b>  a b c d e f</p>	<p>a : Product Type.  b : Bi-Directional  c : Voltage. 33V=3.3V, 05V=5.0V, 08V=8.0V  d : Package Code  e : Handling Code</p> <p>g : Lead Plating Code  G : Lead-free product.</p> <p><i>This product is Halogen Free</i></p>
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## ORDERING INFORMATION

Part Number	Package Code	Handling Code	Shipping
EB33VD2-TRG	D2 : DFN1006-2	TR : Tape&Reel	5K/Reel
EB05VD2-TRG			
EB08VD2-TRG			

## TYPICAL CHARACTERISTICS

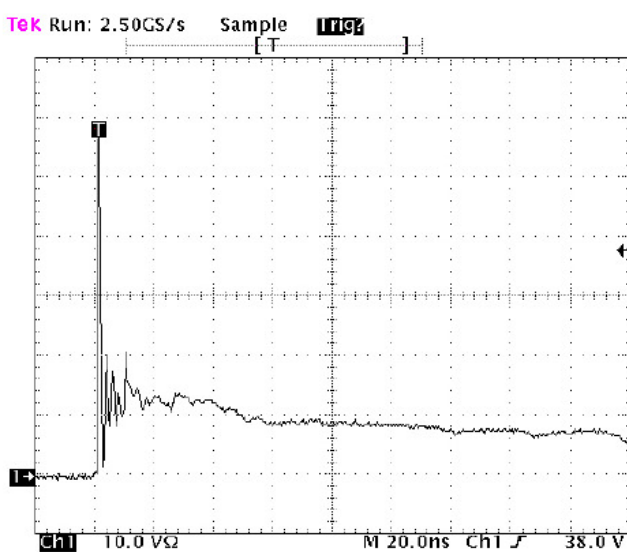


Figure 1. ESD Clamping Voltage Screenshot (8KV Contant per IEC 61000-4-2)

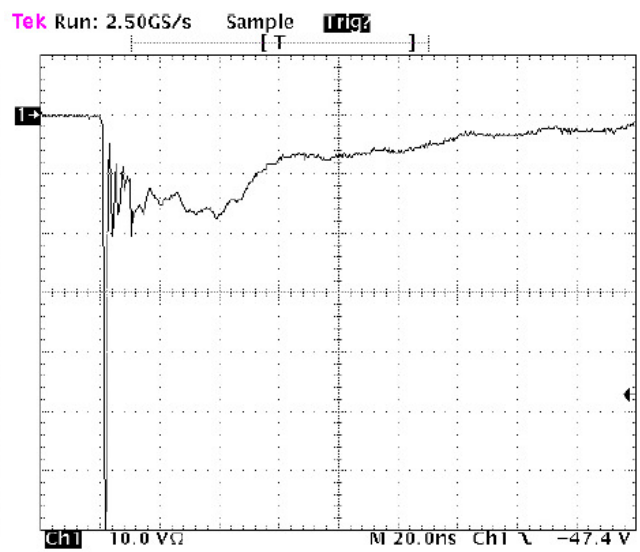


Figure 2. ESD Clamping Voltage Screenshot (8KV Contant per IEC 61000-4-2)

## DFN1006-2 PACKAGE DIMENSIONS

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.4500	0.5500	0.0180	0.0220
A1	0.0400	0.0700	0.0000	0.0030
D	0.9500	1.0500	0.0370	0.0410
E	0.5500	0.6500	0.0220	0.0260
D1	0.4500REF.		0.0180REF.	
E1	0.4000REF.		0.0160REF.	
b	0.2750	0.3250	0.0110	0.0130
e	0.6750	0.7250	0.0270	0.0290
L	0.2750	0.3250	0.0110	0.0130
L1	0.0100REF.		0.0000REF.	

