

## DESCRIPTION

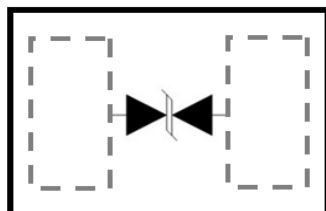
WE24DF-B is a low-capacitance Transient Voltage Suppressor (TVS) designed to provide electrostatic discharge (ESD) protection for data, control or power lines. With maximum capacitance of 17pF only, WE24DF-B is designed to protect parasitic-sensitive systems against over-voltage and over-current transient events. It complies with IEC 61000-4-2 (ESD), Level 4 ( $\pm 15\text{kV}$  air,  $\pm 8\text{kV}$  contact discharge), very fast charged device model (CDM) ESD and cable discharge event (CDE), etc.

WE24DF-B uses ultra-small DFN1006 package. Each WE24DF-B device can protect one data line. It offers system designers flexibility to protect single data line where space is a premium concern.

## ORDERING INFORMATION

- ✧ Device: WE24DF-B
- ✧ Package: DFN1006
- ✧ Marking: DH
- ✧ Material: Halogen free
- ✧ Packing: Tape & Reel
- ✧ Quantity per reel: 10,000pcs

## PIN CONFIGURATION



## FEATURES

- ✧ IEC61000-4-2 (ESD)  $\pm 15\text{kV}$  (air),  $\pm 8\text{kV}$  (contact)
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns)
- ✧ IEC61000-4-5 (Lighting) 3A (8/20 $\mu\text{s}$ )
- ✧ 200 Watts Peak Pulse Power per (tp=8/20 $\mu\text{s}$ )
- ✧ Working voltages : 24V
- ✧ Low clamping voltage
- ✧ Low leakage current

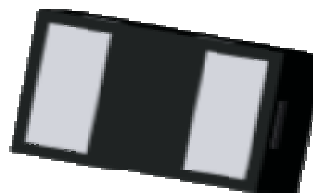
## MACHANICAL DATA

- ✧ DFN1006 package
- ✧ Flammability Rating: UL 94V-0
- ✧ Packaging: Tape and Reel
- ✧ Reel size: 7 inch

## APPLICATIONS

- ✧ Serial and Parallel Ports
- ✧ Notebooks, Desktops, Servers
- ✧ Projection TV
- ✧ Cellular handsets and accessories
- ✧ Portable instrumentation
- ✧ Peripherals

## PACKAGE OUTLINE



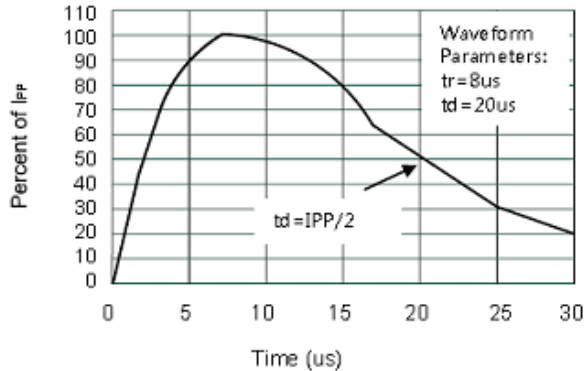
**ABSOLUTE MAXIMUM RATING**

Symbol	Parameter	Value	Units
$V_{ESD}$	ESD per IEC 61000-4-2 (Air)	$\pm 30$	kV
	ESD per IEC 61000-4-2 (Contact)	$\pm 20$	
$P_{PP}$	Peak Pulse Power (8/20 $\mu$ s)	200	W
$T_{OPT}$	Operating Temperature	-55/+150	$^{\circ}$ C
$T_{STG}$	Storage Temperature	-55/+150	$^{\circ}$ C
$T_L$	Lead Soldering Temperature	260 (10 sec.)	$^{\circ}$ C

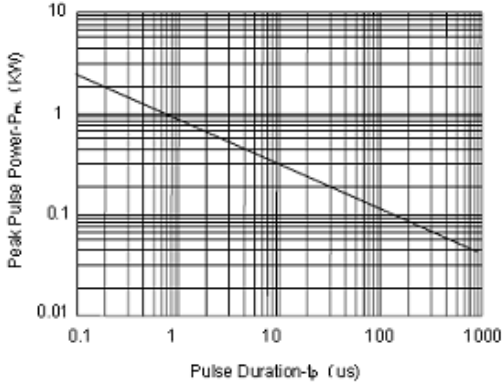
**ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^{\circ}$ C)**

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
$V_{RWM}$	Reverse Working Voltage				24	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	26		32	V
$I_R$	Reverse Leakage Current	$V_{RWM} = 24\text{V}$			1	$\mu$ A
$V_{C1}$	Clamping Voltage 1	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$			36	V
$V_{C2}$	Clamping Voltage 2	$I_{PP} = 3\text{A}, t_p = 8/20\mu\text{s}$			50	V
$C_J$	Junction Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		13	17	pF

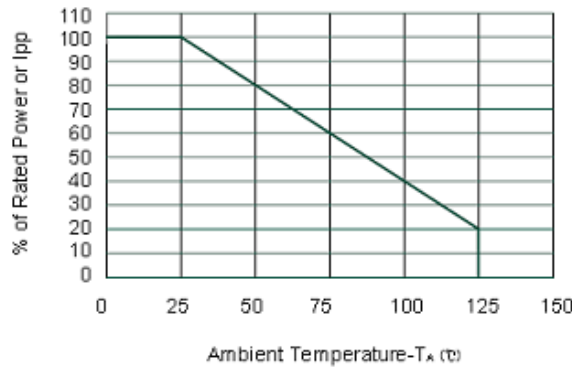
**ELECTRICAL CHARACTERISTICS CURVE**



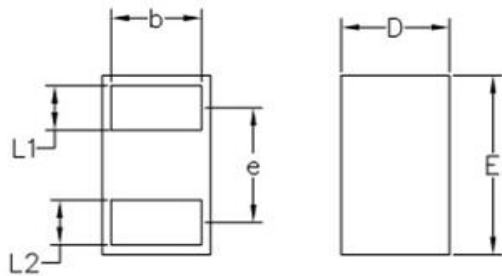
**Pulse Waveform**



**Non-Repetitive Peak Pulse Power vs. Pulse Time**

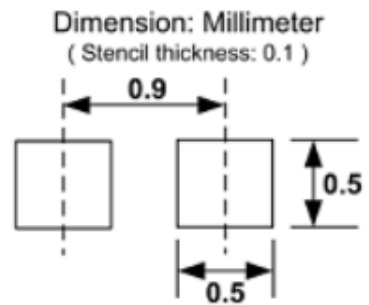


**DFN1006 PACKAGE OUTLINE DIMENSIONS**



**NOTE: ALL DIMENSIONS IN MM**

	MIN	NOM	MAX
<b>D</b>	<b>0.55</b>	<b>0.60</b>	<b>0.65</b>
<b>E</b>	<b>0.95</b>	<b>1.00</b>	<b>1.05</b>
<b>L1</b>	<b>0.20</b>	<b>0.25</b>	<b>0.30</b>
<b>L2</b>	<b>0.20</b>	<b>0.25</b>	<b>0.30</b>
<b>A</b>	<b>0.45</b>	<b>0.50</b>	<b>0.55</b>
<b>b</b>	<b>0.45</b>	<b>0.50</b>	<b>0.55</b>
<b>e</b>		<b>0.64BSC</b>	



**Soldering Footprint**