

# ESDBL2402HP

## Transient Voltage Suppressor

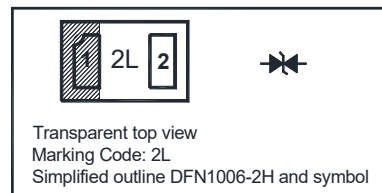
for ESD Protection

### Features

- Low Capacitance
- Low leakage current

### PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



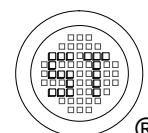
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	$P_{PK}$	90	W
Peak Pulse Current ( $t_p = 8/20 \mu\text{s}$ )	$I_{PP}$	2	A
IEC61000-4-2 (ESD) Air Contact	$V_{ESD}$	$\pm 20$ $\pm 20$	KV
Power Dissipation <sup>1)</sup>	$P_D$	250	mW
Thermal Resistance Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Operation and Storage Temperature Range	$T_j, T_{stg}$	- 65 to + 150	$^\circ\text{C}$

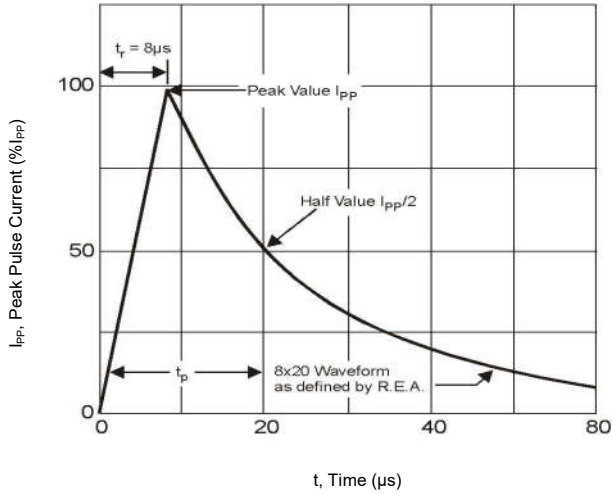
<sup>1)</sup> Device mounted on FR-4 PCB pad layout (2oz copper).

### Characteristics at $T_a = 25^\circ\text{C}$

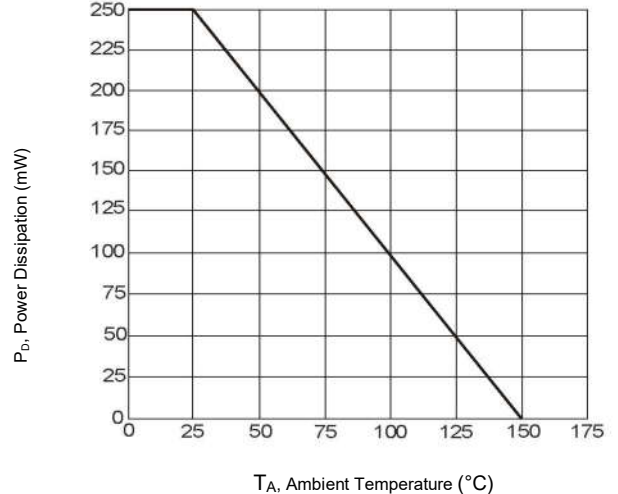
Parameter	Symbol	Min.	Max.	Unit
Reverse Stand-Off Voltage	$V_{RWM}$	-	24	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	26	32	V
Reverse Current at $V_{RWM} = 24 \text{ V}$	$I_R$	-	0.1	$\mu\text{A}$
Clamping Voltage at $I_{PP} = 1 \text{ A}, t_p = 8/20 \mu\text{s}$ at $I_{PP} = 2 \text{ A}, t_p = 8/20 \mu\text{s}$	$V_C$	- -	42 46	V
Junction Capacitance at $V_R = 0 \text{ V}, f = 1 \text{ MHz}$	$C_j$	-	17	pF



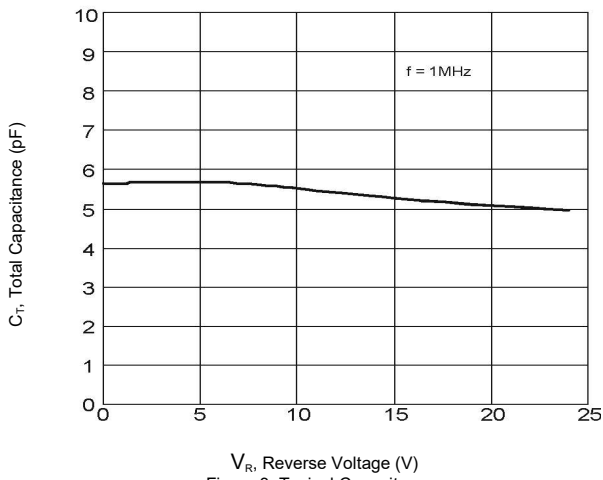
# ESDBL2402HP



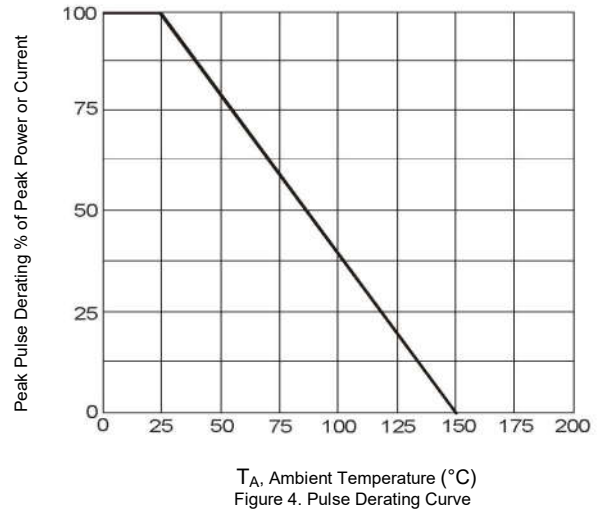
t, Time (μs)  
Figure 1. Pulse Waveform



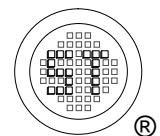
T<sub>A</sub>, Ambient Temperature (°C)  
Figure 2. Power Derating Curve



V<sub>R</sub>, Reverse Voltage (V)  
Figure 3. Typical Capacitance



T<sub>A</sub>, Ambient Temperature (°C)  
Figure 4. Pulse Derating Curve

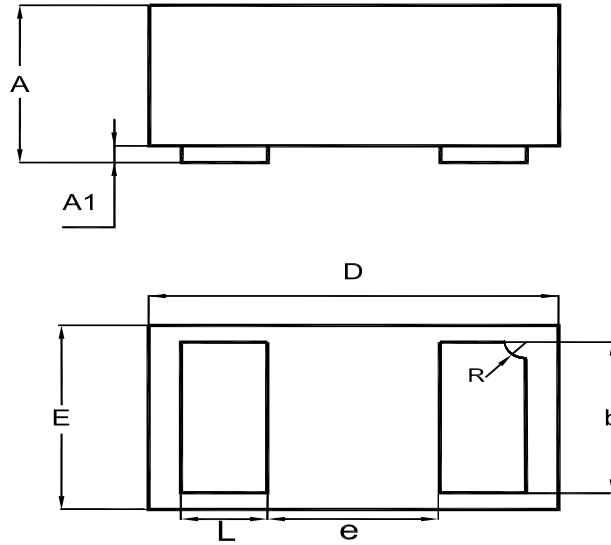


# ESDBL2402HP

## PACKAGE OUTLINE

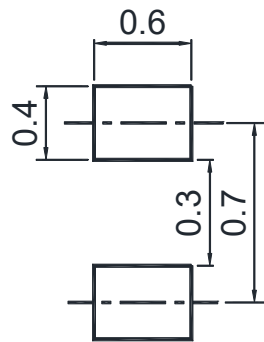
Plastic surface mounted package

DFN1006-2H



UNIT	A	A1	b	D	E	e	L	R
mm	0.51	0.05	0.55	1.05	0.65	0.4	0.3	0.15
	0.46	0	0.45	0.95	0.55		0.2	0.05

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1006-2H	8	4 ± 0.1	0.157 ± 0.004	178	7	5,000

