

# ESDBL0531DP-HAF

## Transient Voltage Suppressors

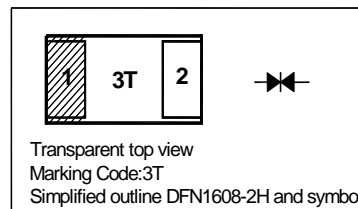
for ESD Protection

### Features

- Low Clamping Voltage
- Low operating voltage
- Bi-direction high reliability
- Halogen and Antimony Free(HAF), RoHS compliant

### PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



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

Parameter	Symbol	Value	Unit
IEC61000-4-2 (ESD) Air Contact	$V_{\text{ESD}}$	$\pm 20$ $\pm 12$	KV
Peak Pulse Current ( $t_p = 8/20 \text{ us}$ )	$I_{\text{PP}}$	4	A
Peak Pulse Power ( $t_p = 8/20 \text{ us}$ )	$P_{\text{pk}}$	80	W
Operating Temperature	$T_j$	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	- 55 to + 150	$^\circ\text{C}$

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

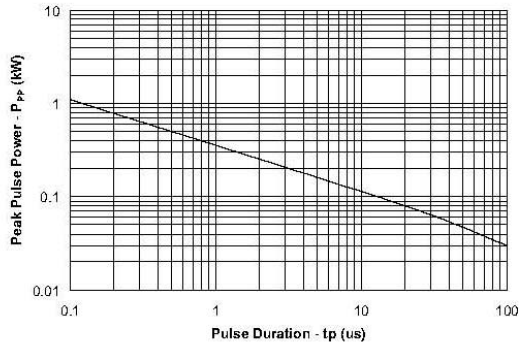
Type	Reverse Stand-off Voltage	Reverse Current	Reverse Breakdown Voltage			Clamping Voltage	Reverse Peak Pulse Current	Capacitance		
	$V_{\text{RWM}}$	$I_{\text{R}}$ at $V_{\text{RWM}}$	$V_{\text{BR}}$		at $I_{\text{T}}$	$V_{\text{C}}$ at Max. $I_{\text{PP}}$	$I_{\text{PP}}$	$C_j$	at f	at $V_{\text{R}}$
	Max. (V)	Max. ( $\mu\text{A}$ )	Min. (V)	Max. (V)	(mA)	Max. (V)	Max. (A)	Max. (pF)	(MHz)	(V)
ESDBL0531DP	5	0.1	6	11	1	12	1	0.8	1	0
						20	4			

**TOP DYNAMIC**

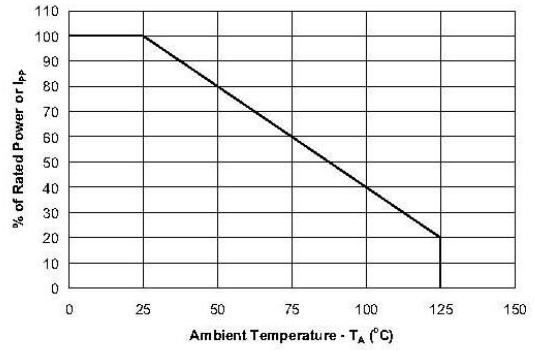


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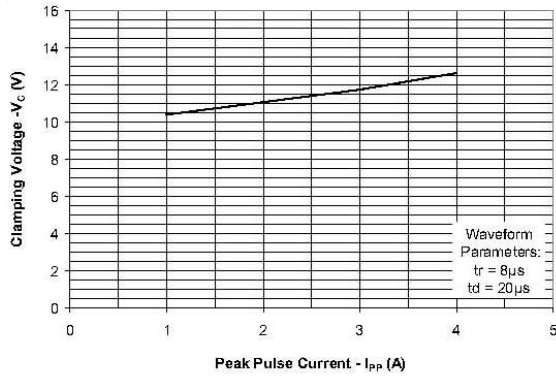
**Non-Repetitive Peak Pulse Power vs. Pulse Time**



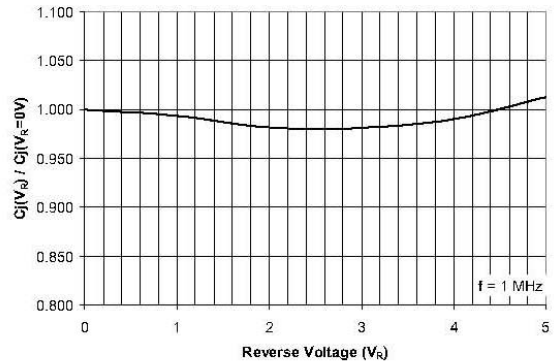
**Power Derating Curve**



**Clamping Voltage vs. Peak Pulse Current**



**Normalized Capacitance vs. Reverse Voltage**

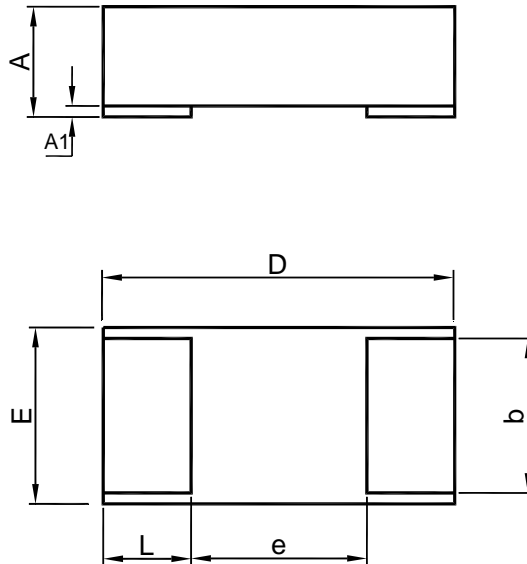


# ESDBL0531DP-HAF

## PACKAGE OUTLINE

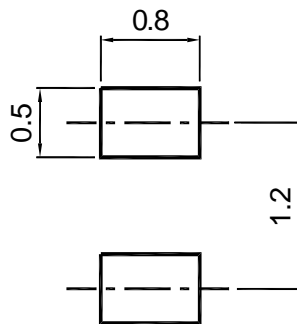
Plastic surface mounted package; 2 leads

DFN1608-2H



UNIT	A	A1	b	D	E	e	L
mm	0.55	0.05	0.75	1.65	0.85	0.85	0.45
	0.45	0	0.65	1.55	0.75	0.75	0.35

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN1608	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

**TOP DYNAMIC**



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