

# ESDB1211DP-HAF

## Transient Voltage Suppressors

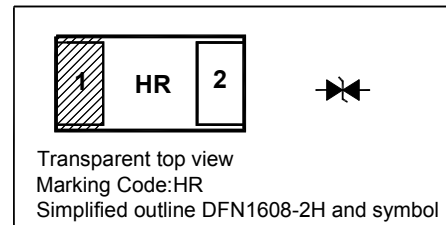
for ESD Protection

### Features

- Protects one I/O or power line
- Low clamping voltage
- Bi-direction high reliability
- Low leakage current
- Halogen and Antimony Free(HAF), RoHS compliant

### PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



### Absolute Maximum Ratings (T<sub>a</sub> = 25°C)

Parameter	Symbol	Value	Unit
Peak Pulse Current (t <sub>p</sub> = 8/20 μs)	I <sub>PP</sub>	7	A
IEC61000-4-2 (ESD) Air Contact	V <sub>ESD</sub>	± 15 ± 8	KV
Peak Pulse Power (t <sub>p</sub> = 8/20 μs)	P <sub>PK</sub>	200	W
Operation Temperature Range	T <sub>j</sub>	- 55 to + 125	°C
Storage Temperature Range	T <sub>stg</sub>	- 55 to + 150	°C

### Characteristics at T<sub>a</sub> = 25°C

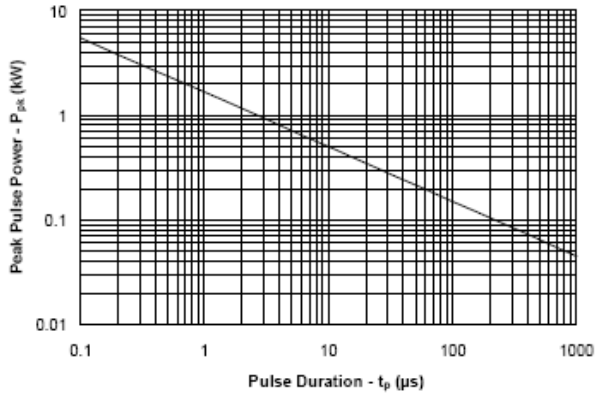
Parameter	Symbol	Min.	Max.	Unit
Reverse Stand-Off Voltage	V <sub>RWM</sub>	-	12	V
Reverse Breakdown Voltage at I <sub>R</sub> = 1 mA	V <sub>(BR)R</sub>	13.3	-	V
Reverse Current at V <sub>RWM</sub> = 12 V	I <sub>R</sub>	-	1	uA
Clamping Voltage at I <sub>PP</sub> = 1 A, t <sub>p</sub> = 8/20 μs at I <sub>PP</sub> = 7 A, t <sub>p</sub> = 8/20 μs	V <sub>C</sub>	-	19 28.5	V
Junction Capacitance at V <sub>R</sub> = 0 V, f = 1 MHz	C <sub>j</sub>	-	25	pF

**TOP DYNAMIC**

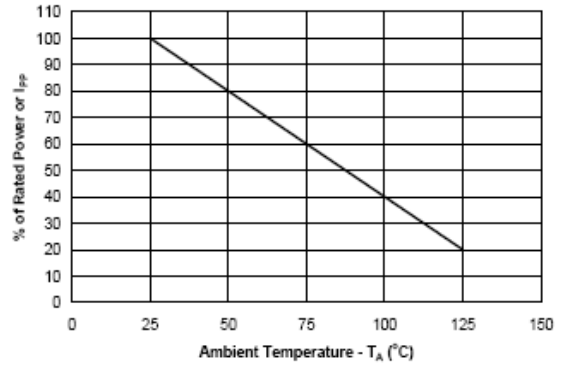


# ESDB1211DP-HAF

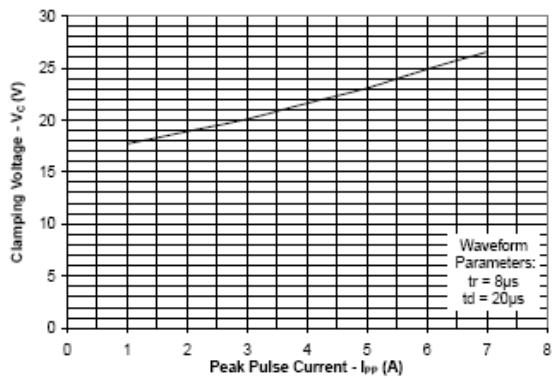
**Non-Repetitive Peak Pulse Power vs. Pulse Time**



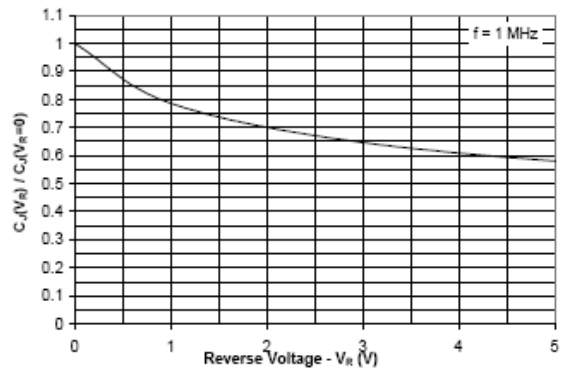
**Power Derating Curve**



**Clamping Voltage vs. Peak Pulse Current**



**Normalized Junction Capacitance vs. Reverse Voltage**



**TOP DYNAMIC**



ISO14001 : 2004 Certificate No. 121505007  
 ISO 9001 : 2008 Certificate No. 01141012  
 OHSAS 18001 : 2007 Certificate No. 05191508008  
 IECQ QC 080000 Certificate No. E241800074482

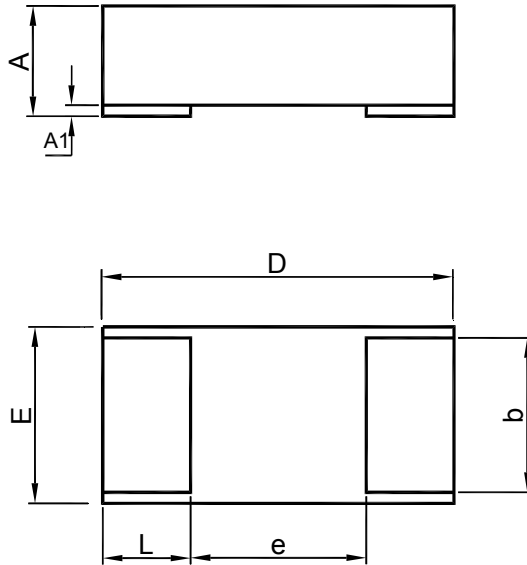
Dated: 09/07/2015 Rev: 02

# ESDB1211DP-HAF

## PACKAGE OUTLINE

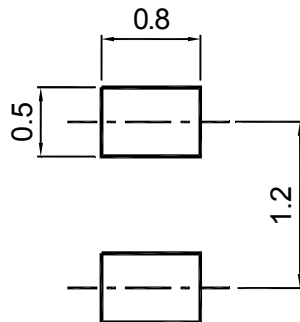
Plastic surface mounted package; 2 leads

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**



ISO14001 : 2004 Certificate No. 121505007  
 ISO 9001 : 2008 Certificate No. 50114012  
 OHSAS 18001 : 2007 Certificate No. 05191506008  
 IECQ QC 080000 Certificate No. E241800074482

Dated: 09/07/2015 Rev: 02