

# ESDUL5V3BP-HAF

## Transient Voltage Suppressors

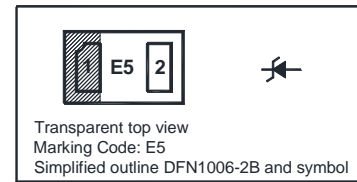
for ESD Protection

### Features

- Low capacitance
- Low reverse current
- Halogen and Antimony Free(HAF), RoHS compliant

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
ESD discharge (IEC61000-4-2) Contact Air	$V_{ESD}$	$\pm 20$ $\pm 20$	KV
Peak Pulse Current ( $t_p = 8/20 \mu\text{s}$ )	$I_{PP}$	3	A
Operating Temperature Range	$T_j$	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Stand-Off Voltage	$V_{RWM}$	-	5.3	V
Holding Voltage at $I_R = 1 \text{ mA}$ , from pin 1 to pin 2	$V_{BR}$	6	-	V
Reverse Current at $V_{RWM} = 5.3 \text{ V}$ from pin 1 to pin 2	$I_R$	-	100	nA
Clamping Voltage at $I_{PP} = 1 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , from pin 1 to pin 2 at $I_{PP} = 3 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , from pin 1 to pin 2	$V_C$	- -	13 15	V
Forward clamping Voltage at $I_{PP} = 1 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , from pin 2 to pin 1 at $I_{PP} = 3 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ , from pin 2 to pin 1	$V_{FC}$	- -	4 6	V
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_j$	-	0.6	pF

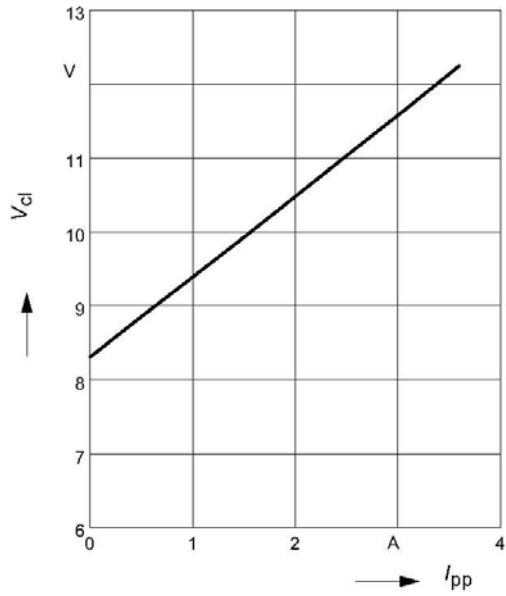
**TOP DYNAMIC**

Dated: 11/10/2017 Rev: 03

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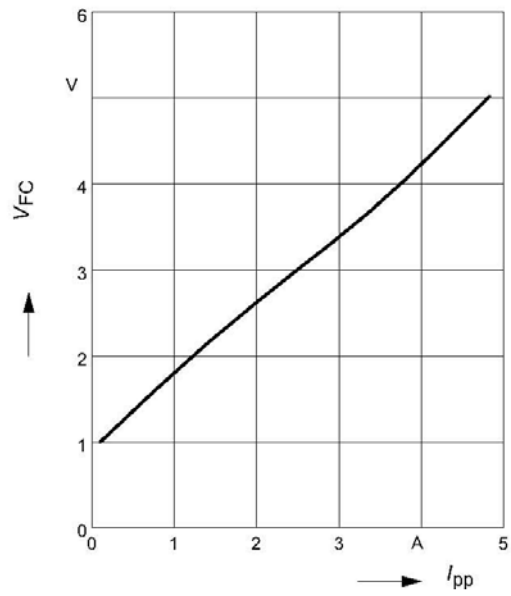
**Clamping voltage,  $V_{cl} = f(I_{pp})$**

$t_p = 8 / 20 \mu s$ , from pin 1 to 2



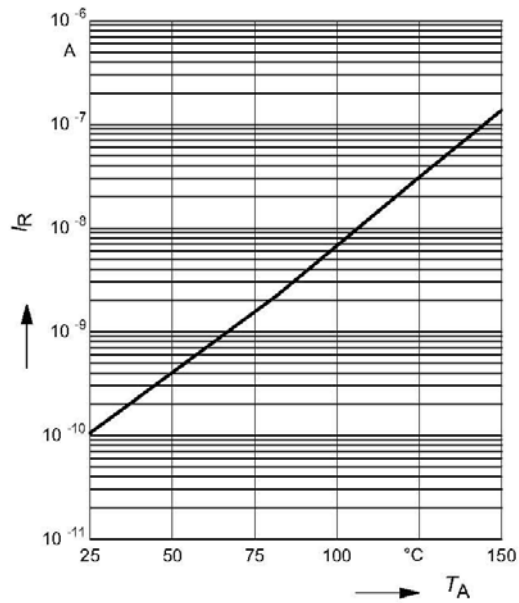
**Forward clamping voltage  $V_{FC} = f(I_{pp})$**

$t_p = 8 / 20 \mu s$ , from pin 2 to 1



**Reverse current  $I_R = f(T_A)$**

$V_R = 5.3 V$ , from pin 1 to 2



**TOP DYNAMIC**

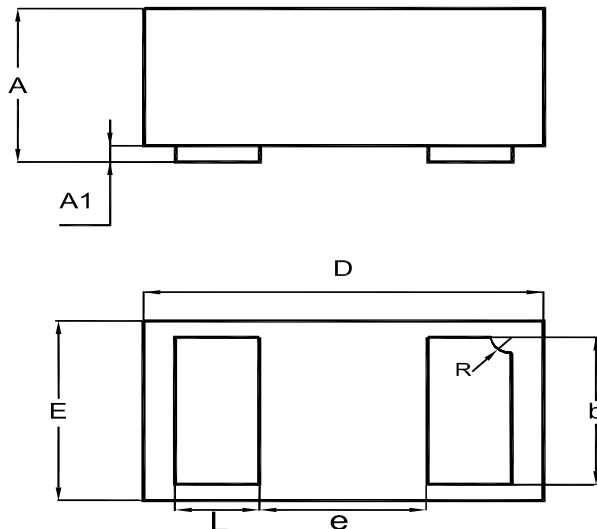
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# ESDUL5V3BP-HAF

## PACKAGE OUTLINE

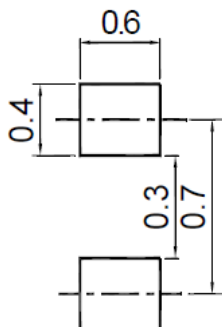
Plastic surface mounted package; 2 leads

DFN1006-2B



UNIT	A	A1	b	D	E	e	L	R
mm	0.40 0.36	0.05 0	0.55 0.45	1.05 0.95	0.65 0.55	0.4	0.3 0.2	0.15 0.05

### Recommended Soldering Footprint



### Packing information

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

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