

# ESDU0501P

## Transient Voltage Suppressors

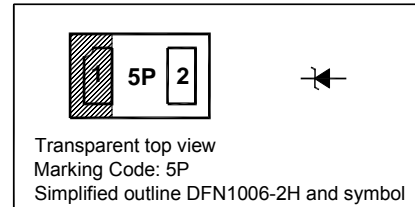
for ESD Protection

### Features

- Protects one I/O or power line
- Low leakage Current
- Low clamping voltage

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

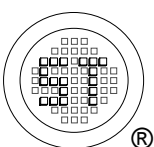


### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Pulse Current ( $t_p = 8/20 \mu\text{s}$ )	$I_{PP}$	16	A
IEC61000-4-2 (ESD) Air Contact	$V_{PP}$	$\pm 20$ $\pm 15$	KV
Peak Pulse Power ( $t_p = 8/20 \mu\text{s}$ )	$P_{PK}$	200	W
Operation Temperature Range	$T_j$	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 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	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	6	-	V
Forward Voltage at $I_F = 10 \text{ mA}$	$V_F$	-	0.8	V
Reverse Current at $V_{RWM} = 5 \text{ V}$	$I_R$	-	5	$\mu\text{A}$
Clamping Voltage at $I_{PP} = 5 \text{ A}$ , $t_p = 8/20 \mu\text{s}$ at $I_{PP} = 16 \text{ A}$ , $t_p = 8/20 \mu\text{s}$	$V_C$	-	9.8 12.5	V
Junction Capacitance at $V_R = 0 \text{ V}$ , $f = 1 \text{ MHz}$	$C_j$	-	160	pF

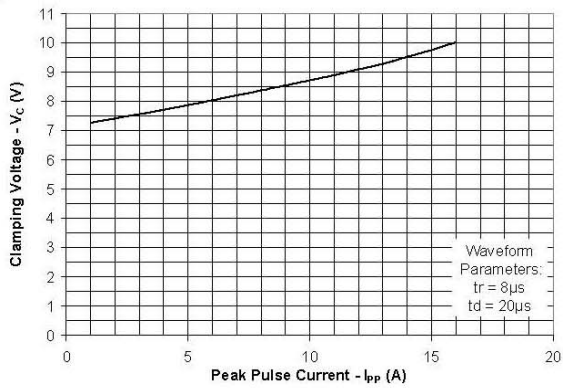


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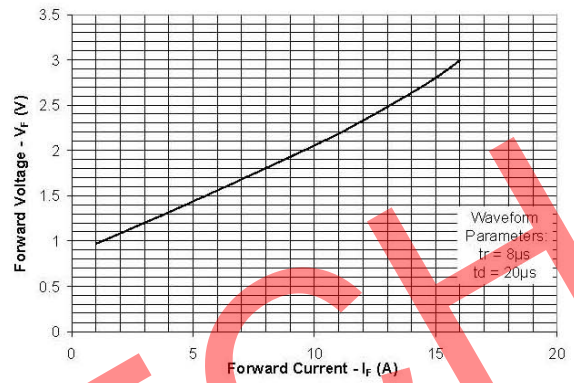


Dated: 08/06/2013 Rev: 02

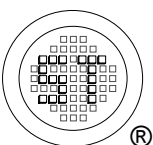
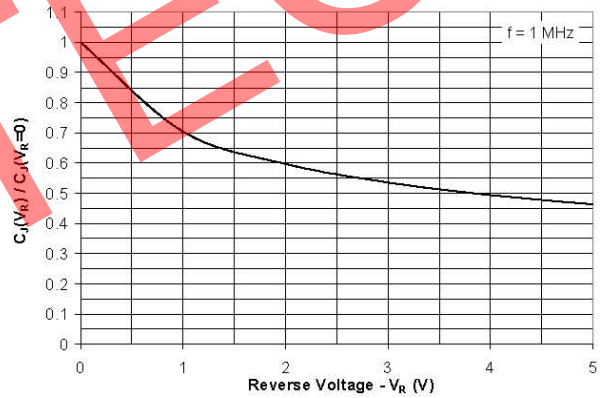
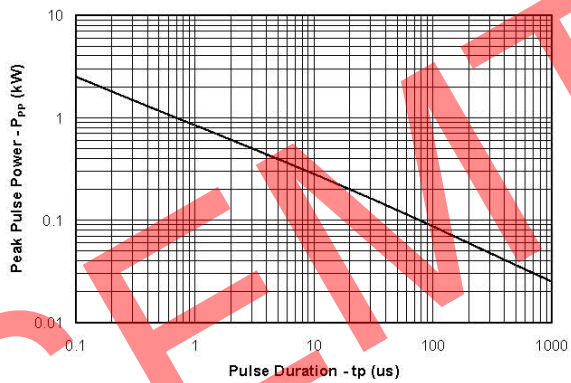
**Clamping Voltage vs. Peak Pulse Current**



**Forward Voltage vs. Forward Current**



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



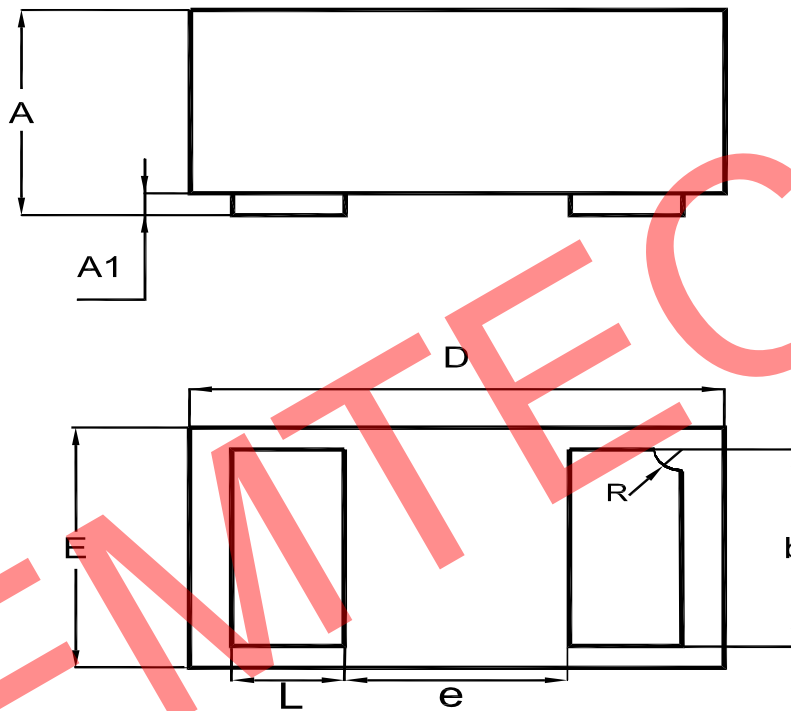
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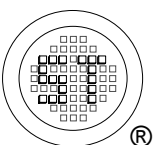
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

DFN1006-2H



UNIT	A	A1	b	D	E	e	L	R
mm	0.51	0.05	0.55	1.075	0.675	0.4	0.3	0.15
	0.46	0	0.45	0.95	0.55		0.2	0.05



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