

ESDUL2501BP

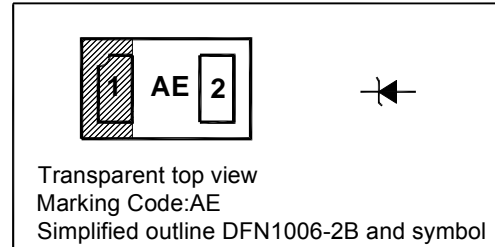
Transient Voltage Suppressors

Features

- Protects one data line
- Low leakage current
- Low Operating 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}	5	A
IEC61000-4-2 (ESD) Air Contact	V_{PP}	± 20 ± 15	KV
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	40	W
Operation Temperature Range	T_j	- 40 to + 85	$^\circ\text{C}$
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}	-	2.5	V
Punch-Through Voltage at $I_{PT} = 2 \mu\text{A}$	V_{PT}	2.7	3.6	V
Snap-Back Voltage at $I_{SB} = 50 \text{ mA}$	V_{SB}	2.8	-	V
Reverse Current at $V_{RWM} = 2.5 \text{ V}$	I_R	-	0.05	μA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, $t_p = 8/20 \mu\text{s}$ at $I_{PP} = 5 \text{ A}$, $t_p = 8/20 \mu\text{s}$	V_C	-	5 7.5	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_j	-	30	pF

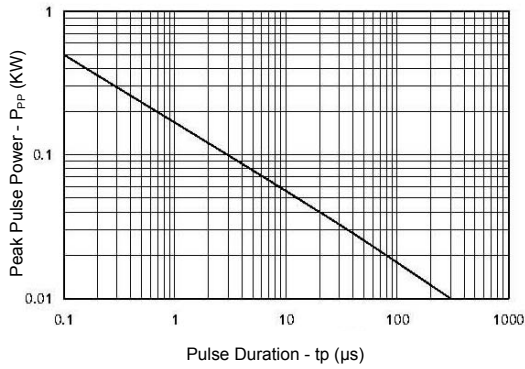
TOP DYNAMIC



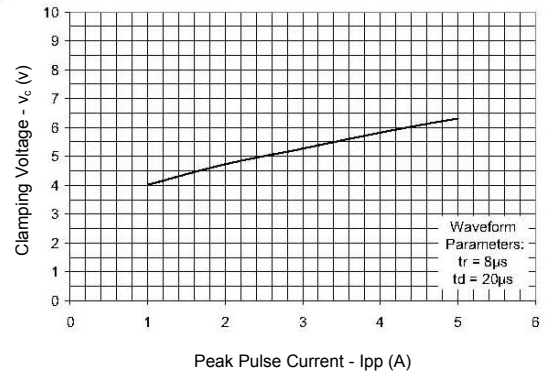
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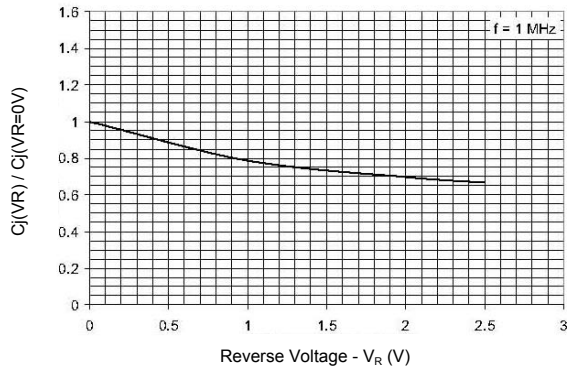
Non-Repetitive Peak Pulse Power vs. Pulse Time



Clamping Voltage vs. Peak Pulse Current



Normalized Junction Capacitance vs. Reverse Voltage



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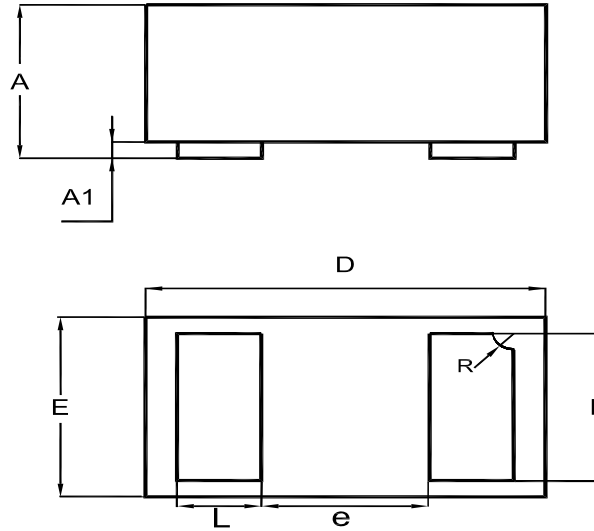


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PACKAGE OUTLINE

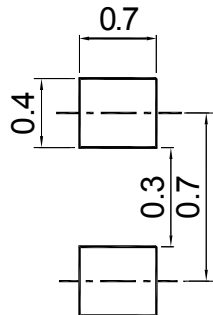
Plastic surface mounted package; 2 leads

DFN1006-2B



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

Recommended Soldering Footprint



Packing information

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

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