

ESDU0824PF

ESD Protection Diode

Features

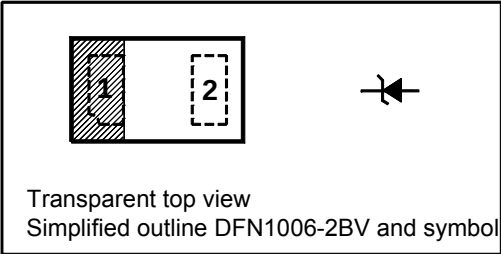
- Protects one data line or power line
- High peak pulse current capability
- Low leakage current
- High reliability
- Ultra small package

Applications

- Cellular Handsets & Accessories
- OLED Displays
- VBUS
- Notebooks & Handhelds
- Portable Instrumentation

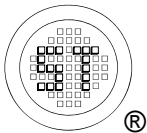
PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	200	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	14	A
IEC61000-4-2 (ESD) Air Contact	V_{ESD}	± 30 ± 30	KV
Operation Temperature Range	T_j	- 40 to + 125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^{\circ}\text{C}$

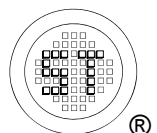


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Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	7.9	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(\text{BR})R}$	8	-	9.5	V
Reverse Current at $V_{\text{RWM}} = 7.5 \text{ V}$	I_R	-	-	100	nA
Clamping Voltage at $I_{\text{PP}} = 5 \text{ A}$, $t_p = 8/20 \mu\text{s}$ at $I_{\text{PP}} = 13.3 \text{ A}$, $t_p = 8/20 \mu\text{s}$	V_C	- -	- -	12 15	V
ESD Clamping Voltage at $I_{\text{TLP}} = 4 \text{ A}$, $t_p = 0.2/100 \text{ ns}$ at $I_{\text{TLP}} = 16 \text{ A}$, $t_p = 0.2/100 \text{ ns}$	V_{CL}	- -	9.6 11.8	- -	V
Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$	C_j	-	-	110	pF
Dynamic Resistance ¹⁾	R_{dyn}	-	0.18	-	Ω

¹⁾ Dynamic Resistance calculated from $I_{\text{TLP}} = 4 \text{ A}$ to $I_{\text{TLP}} = 16 \text{ A}$.



Electrical Characteristics Curves

Fig 1. Pulse Waveform

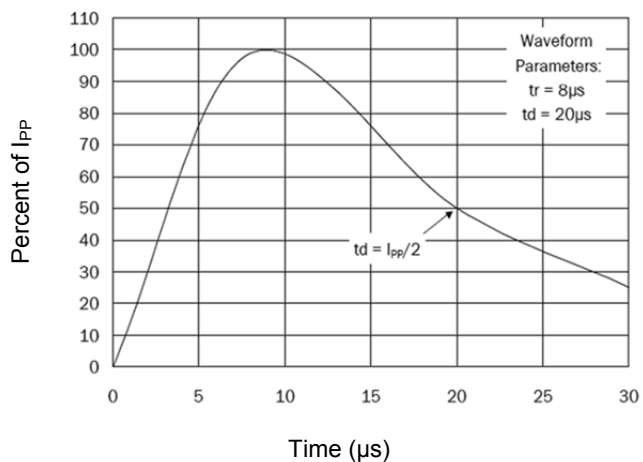


Fig 2. Power Derating Curve

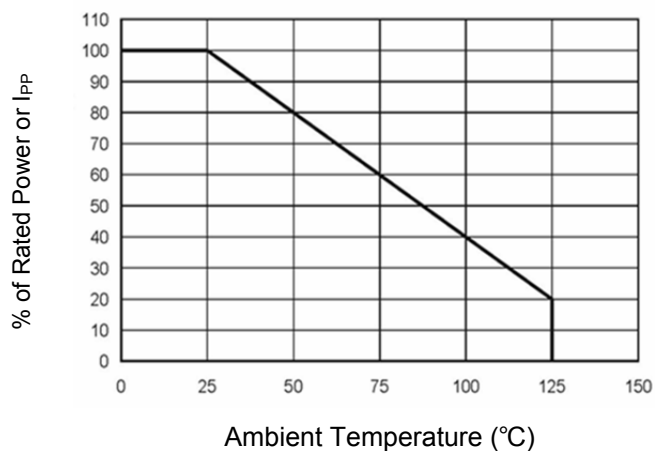


Fig 3. Clamping Voltage Curve

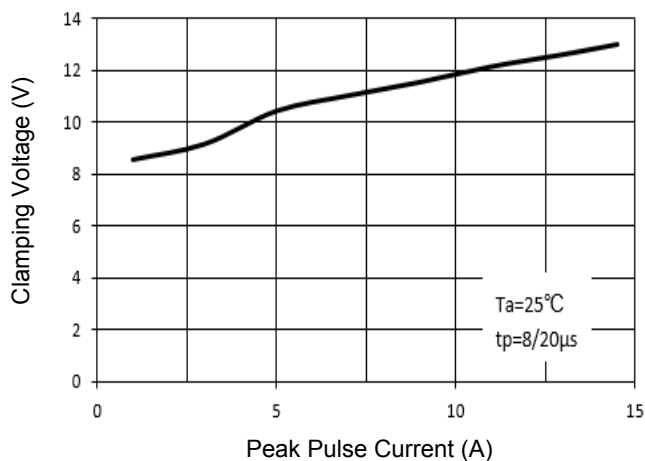


Fig 4. Junction Capacitance

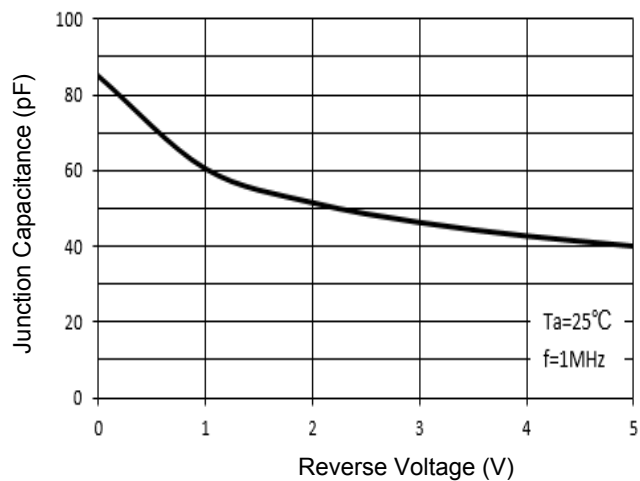
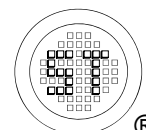
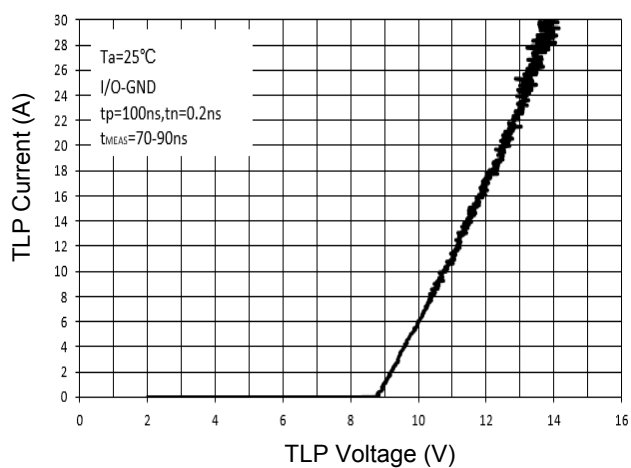


Fig 5. TLP Curve

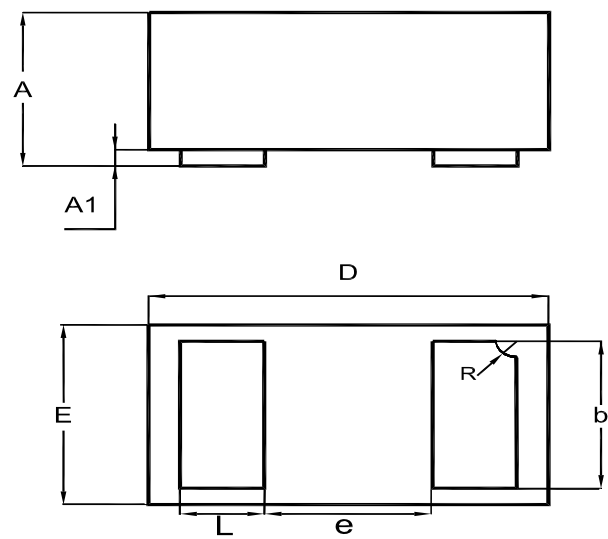


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PACKAGE OUTLINE

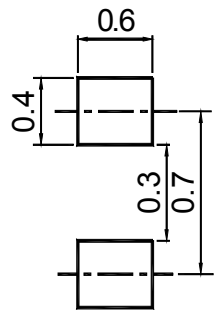
Plastic surface mounted package; 2 leads

DFN1006-2BV



UNIT	A	A1	b	D	E	e	L	R
mm	0.27 0.24	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	
DFN1006-2BV	8	2 ± 0.1	0.079 ± 0.004	178	7	10,000

Marking information

" FD " = Part No.
Font type: Arial

