

ESDU2401BP

Transient Voltage Suppressors

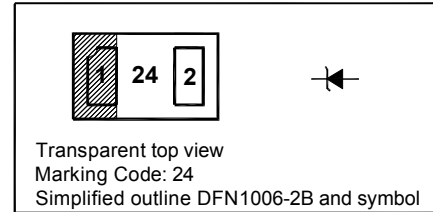
for ESD Protection

Features

- Protects one data 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} | 3 | A |
| IEC61000-4-2 (ESD) Air Contact | V_{PP} | ± 20 ± 15 | KV |
| Peak Pulse Power ($t_p = 8/20 \mu\text{s}$) | P_{PK} | 150 | 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 $T_a = 25^\circ\text{C}$

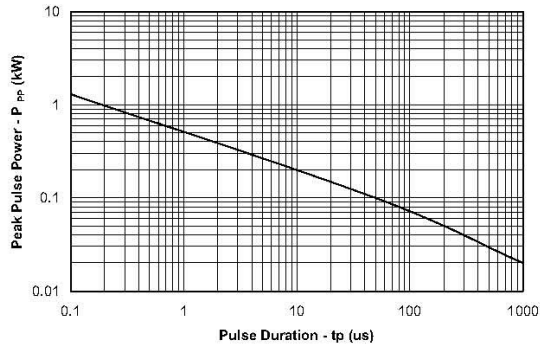
| Parameter | Symbol | Min. | Max. | Unit |
|---|-------------|------|------|---------------|
| Reverse Stand-Off Voltage | V_{RWM} | - | 24 | V |
| Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$ | $V_{(BR)R}$ | 27 | - | V |
| Forward Voltage at $I_F = 10 \text{ mA}$ | V_F | - | 1.2 | V |
| Reverse Current at $V_{RWM} = 24 \text{ V}$ | I_R | - | 0.25 | μA |
| Clamping Voltage at $I_{PP} = 3 \text{ A}$, $t_p = 8/20 \mu\text{s}$ | V_C | - | 50 | V |
| Junction Capacitance at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$ | C_j | - | 50 | pF |

TOP DYNAMIC

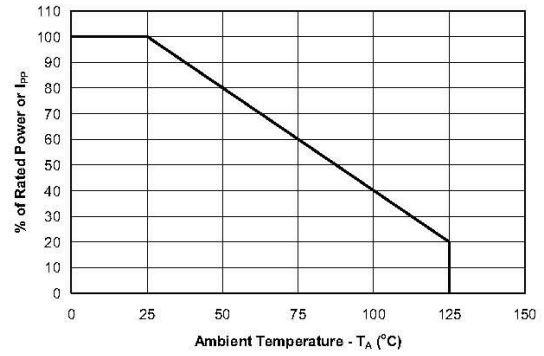


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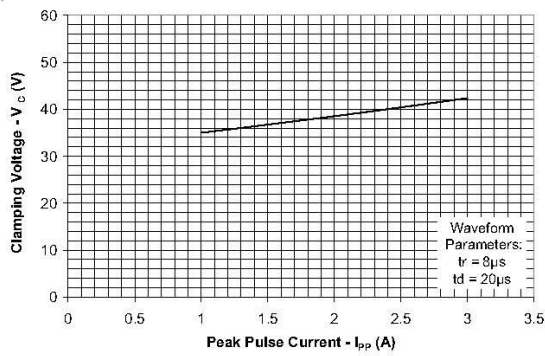
Non-Repetitive Peak Pulse Power vs. Pulse Time



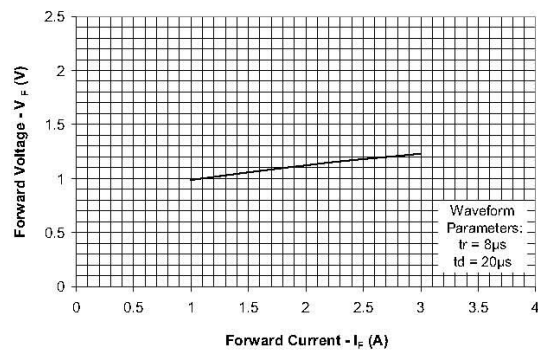
Power Derating Curve



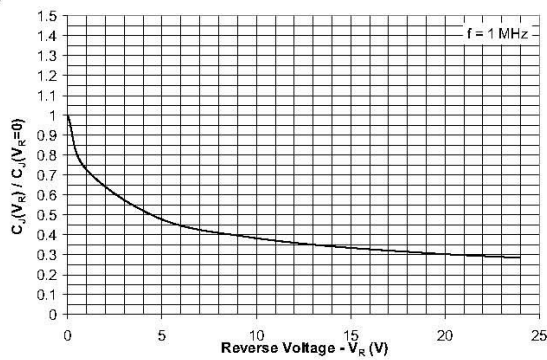
Clamping Voltage vs. Peak Pulse Current



Forward Voltage vs. Forward Current



Normalized Junction Capacitance vs. Reverse Voltage



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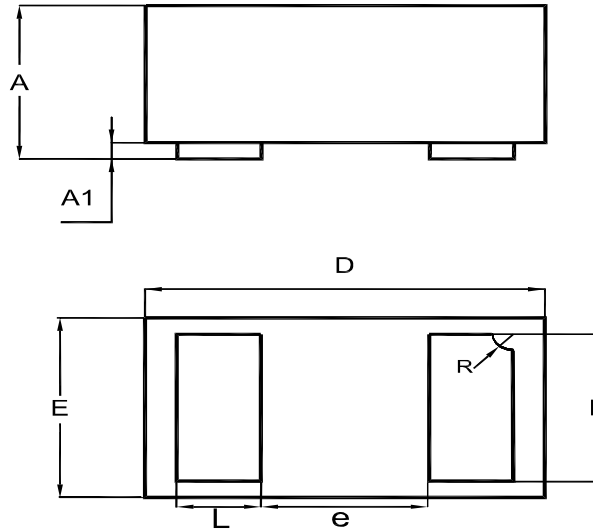


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PACKAGE OUTLINE

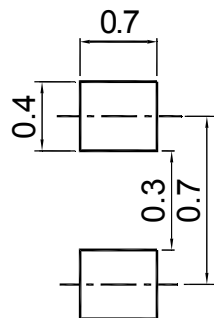
Plastic surface mounted package; 2 leads

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 | | 0.2 | 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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