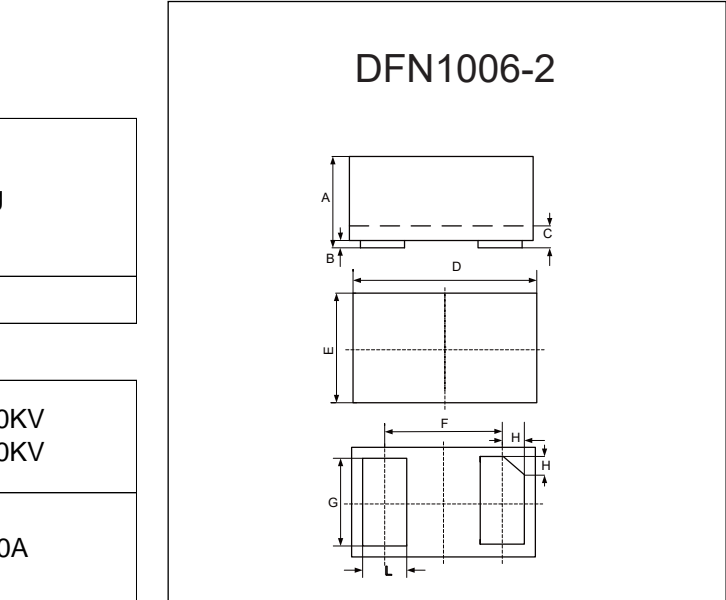
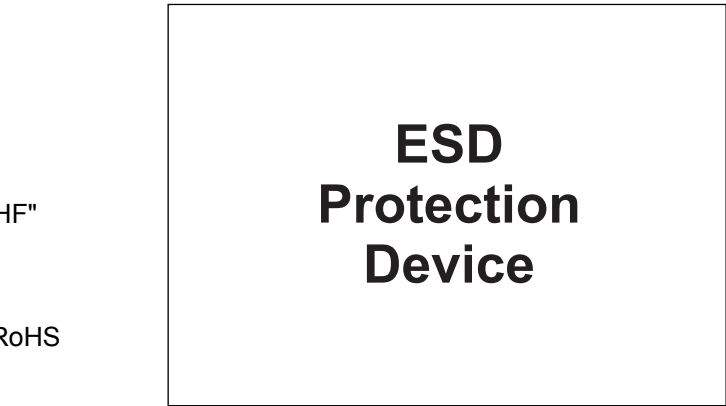


Features

- Ultra Low Leakage: nA Level
- Low Operating Voltage
- Low Clamping Voltage
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

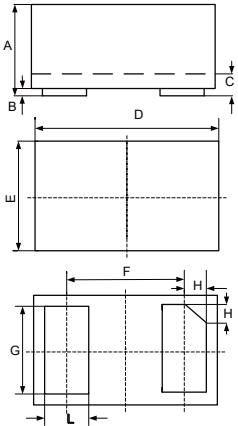
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C



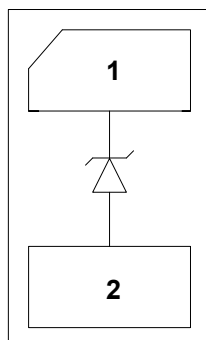
| MCC Part Number | Device Marking |
|-----------------|----------------|
| ESD7V0L | 7P |

| | | |
|-----------------------------|-----------------|----------------|
| IEC61000-4-2(ESD) | Air Contact | ±30KV ±30KV |
| IEC61000-4-4 (EFT) @5/50ns | | 40A |
| IEC61000-4-5(Surge) @8/20us | I _{PP} | 18A |
| Peak pulse power(tp=8/20us) | P _{PP} | 300W |

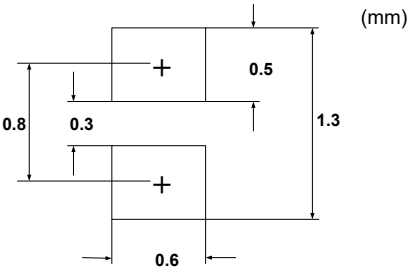


| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.018 | 0.022 | 0.45 | 0.55 | |
| B | 0.000 | 0.002 | 0.00 | 0.05 | |
| C | 0.005 | 0.007 | 0.12 | 0.18 | |
| D | 0.037 | 0.041 | 0.95 | 1.05 | |
| E | 0.022 | 0.026 | 0.55 | 0.65 | |
| F | 0.026 | | 0.650 | | TYP. |
| G | 0.018 | 0.022 | 0.45 | 0.55 | |
| H | 0.003 | 0.007 | 0.07 | 0.17 | |
| L | 0.008 | 0.012 | 0.20 | 0.30 | |

Circuit and Pin Schematic

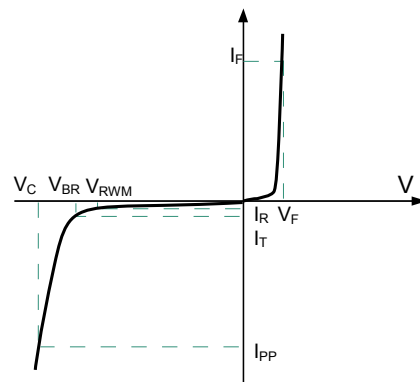


SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

| Symbol | Parameter |
|-----------|-------------------------------------|
| V_{RWM} | Peak Reverse Working Voltage |
| I_R | Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Breakdown Voltage @ I_T |
| I_T | Test Current |
| I_{PP} | Maximum Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| P_{PP} | Peak Pulse Power |
| C_J | Junction Capacitance |
| I_F | Forward Current |
| V_F | Forward Voltage @ I_F |



Electrical Characteristics per line @ 25°C (Unless Otherwise Specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|---------------------------|-----------|--|------|------|------|---------------|
| Reverse Stand-Off Voltage | V_{RWM} | | | | 7 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T=1\text{mA}$ | 7.5 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=7\text{V}$ | | | 0.5 | μA |
| Forward Voltage | V_F | $I_F=10\text{mA}$ | | 1 | 1.2 | V |
| Clamping Voltage | V_C | $I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$ | | | 13 | V |
| Clamping Voltage | V_C | $I_{PP}=18\text{A}, t_p=8/20\mu\text{s}$ | | | 17 | V |
| Junction Capacitance | C_J | $V_R = 4\text{V}, f = 1\text{MHz}$ | | 90 | | pF |

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

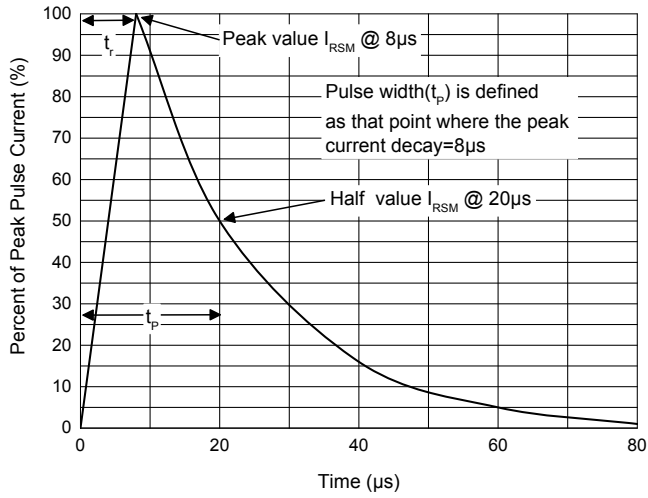


Fig. 2 - Pulse Derating Curve

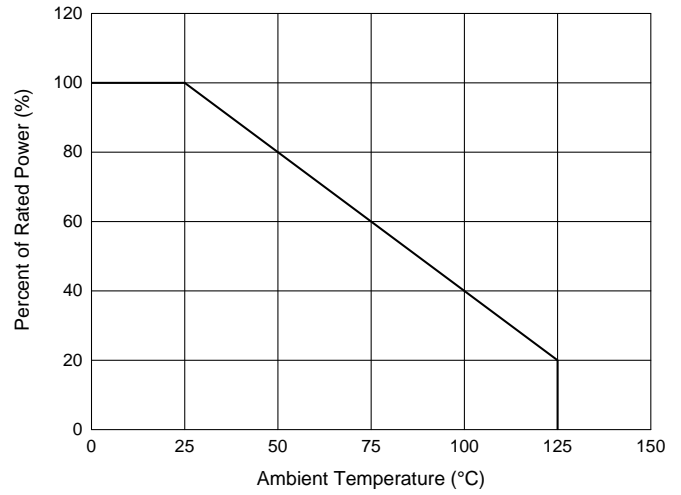


Fig. 3 - Capacitance Characteristics

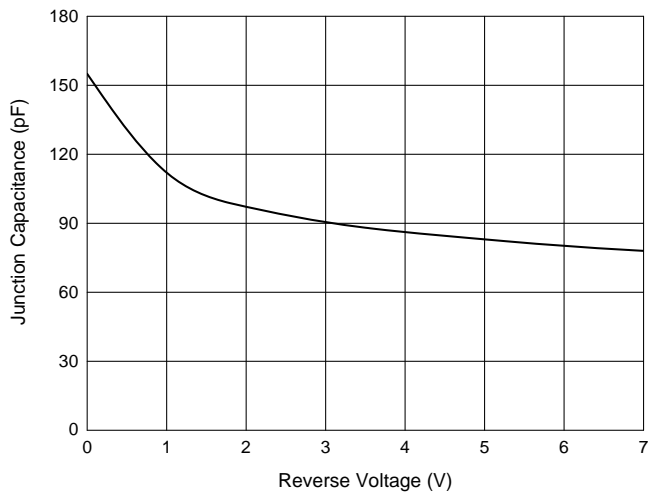
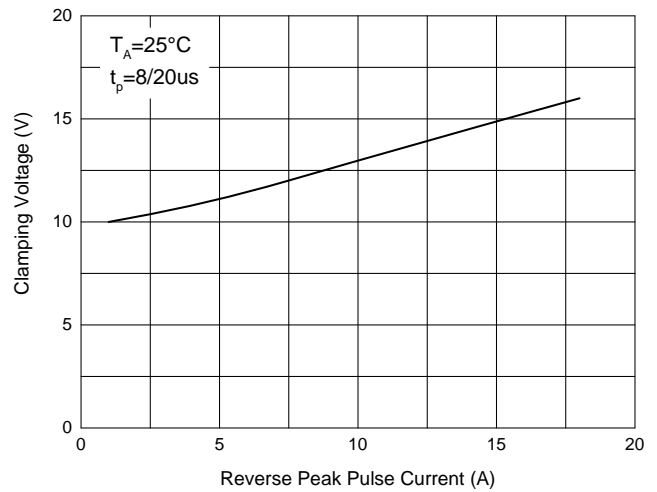


Fig. 4 - Clamping Voltage Characteristics



Ordering Information

| Device | Packing |
|----------------|------------------------|
| Part Number-TP | Tape&Reel: 10Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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[CPDUR24V-HF](#) [CPDQC5V0USP-HF](#) [CPDQC5V0-HF](#) [MPLAD30KP280A](#) [MPLAD30KP45CAE3](#) [MMBZ27VCLQ-7-F](#) [MMAD1108/TR13](#)
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