

Features

- Protects One Data or Power Line
- Ultra Low Clamping Voltage
- Ultra Low Leakage: nA Level
- 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)

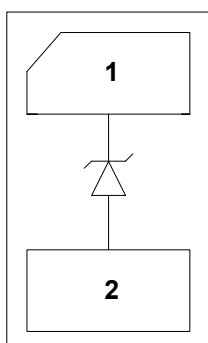
Maximum Ratings

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

| MCC Part Number | Device Marking |
|-----------------|----------------|
| ESDLC3V3L | 3P |

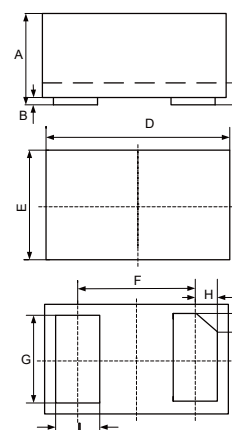
| | | |
|---|-------------|--|
| IEC61000-4-2(ESD) | Air Contact | $\pm 30\text{KV}$ $\pm 30\text{KV}$ |
| IEC61000-4-4 (EFT) @5/50ns | | 40A |
| IEC61000-4-5(Surge) @8/20us | I_{PP} | 10A |
| Peak pulse power($t_p=8/20\text{us}$) | P_{PP} | 150W |

Circuit and Pin Schematic



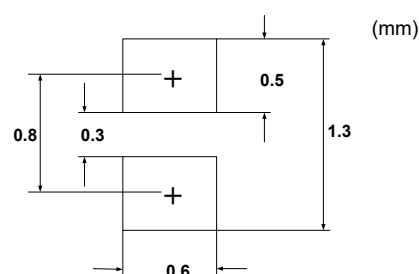
ESD Protection Device

DFN1006-2



| 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 | |

SUGGESTED SOLDER PAD LAYOUT



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

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|---------------------------|-----------|-----------------------------|------|------|------|---------|
| Reverse Stand-Off Voltage | V_{RWM} | | | | 3.3 | V |
| Punch-Through Voltage | V_{PT} | $I_T=2\mu A$ | 3.5 | | | V |
| Snap-Back Voltage | V_{SB} | $I_T=50mA$ | 2.8 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=3.3V$ | | | 0.5 | μA |
| Clamping Voltage | V_C | $I_{PP}=1A, t_p=8/20\mu s$ | | 7 | | V |
| Clamping Voltage | V_C | $I_{PP}=10A, t_p=8/20\mu s$ | | | 15 | V |
| Junction Capacitance | C_J | $V_R = 0V, f = 1MHz$ | | 22 | 30 | pF |
| Junction Capacitance | C_J | $V_R = 3.3V, f = 1MHz$ | | 14 | 20 | pF |

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

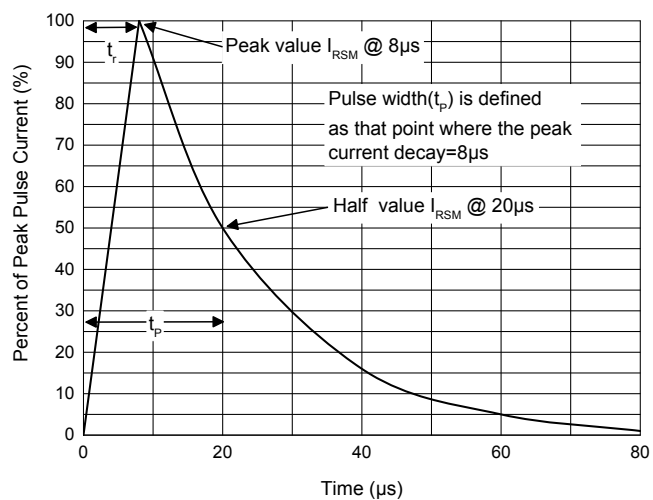


Fig. 2 - Pulse Derating Curve

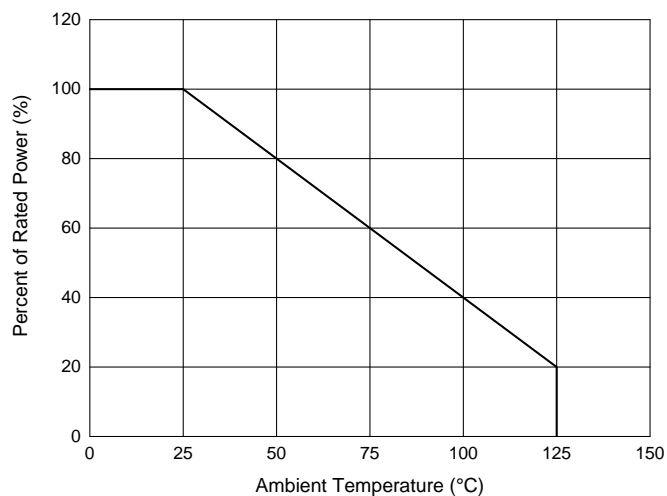


Fig. 3 - Capacitance Characteristics

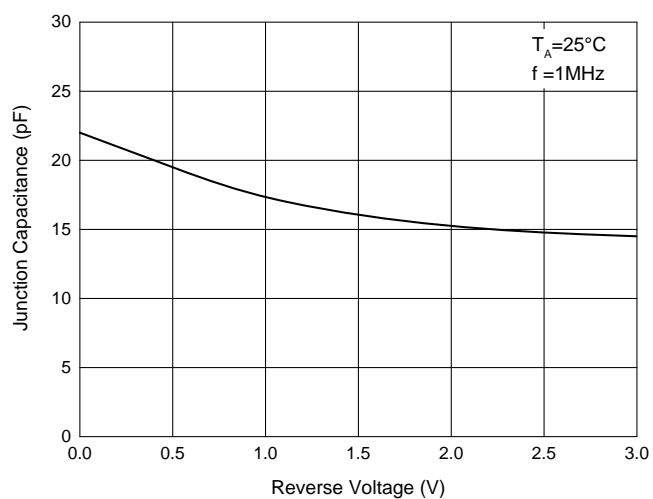
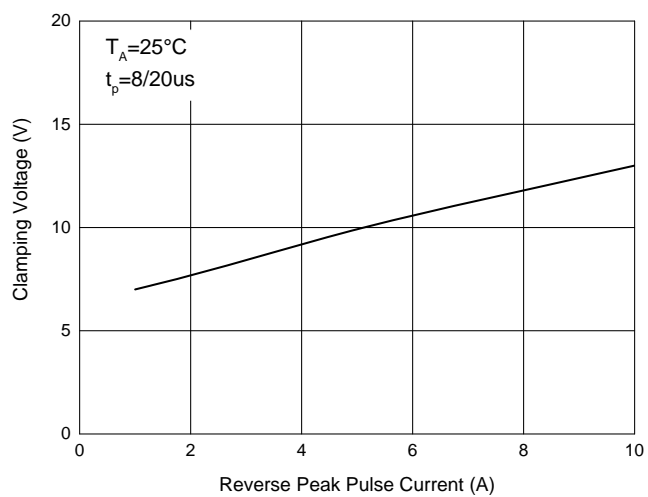


Fig. 4 - Clamping Voltage Characteristics



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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