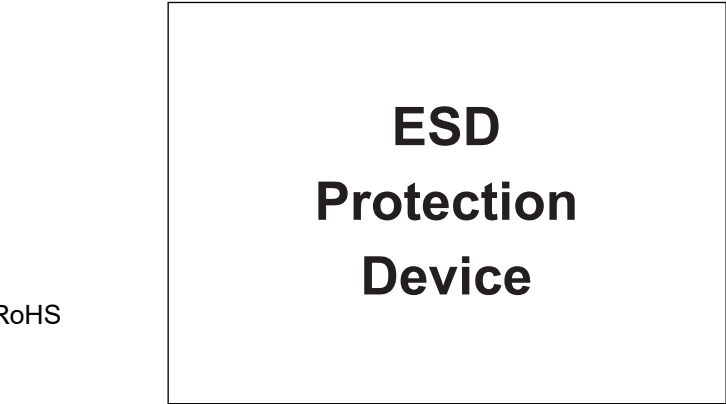


Features

- Chip Scale Package
- Ultra Low Capacitance
- Ultra Low Leakage
- Low Clamping Voltage
- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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



CSP1006-2

| DIMENSIONS | | | | | |
|------------|--------|-------|-------|------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | 0.016 | 0.022 | 0.40 | 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 | 0.002 | 0.008 | 0.05 | 0.20 | |
| L | 0.008 | 0.012 | 0.20 | 0.30 | |

SUGGESTED SOLDER PAD LAYOUT

| MCC Part Number | Device Marking |
|-----------------|----------------|
| CSPULC5V0LB | 21 |

| | | |
|----------------------------|-----------------|----------------|
| IEC61000-4-2(ESD) | Air Contact | ±20KV ±15KV |
| Peak Pulse Current(8/20µs) | I _{PP} | 4A |
| Peak Pulse Power (8/20µs) | P _{PK} | 80W |

Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|---------------------------|-----------|----------------------------|------|------|------|---------|
| Reverse Working Voltage | V_{RWM} | | | | 5 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T=1mA$ | 6 | 7.5 | 8.5 | V |
| Reverse Leakage Current | I_R | $V_{RWM}=5V$ | | | 0.5 | μA |
| Clamping Voltage | V_C | $I_{PP}=1A, t_p=8/20\mu s$ | | | 12 | V |
| Clamping Voltage | V_C | $I_{PP}=4A, t_p=8/20\mu s$ | | 19 | 22 | V |
| Junction Capacitance | C_J | $V_R=0V, f=1MHz$ | | 0.3 | 0.45 | pF |

Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

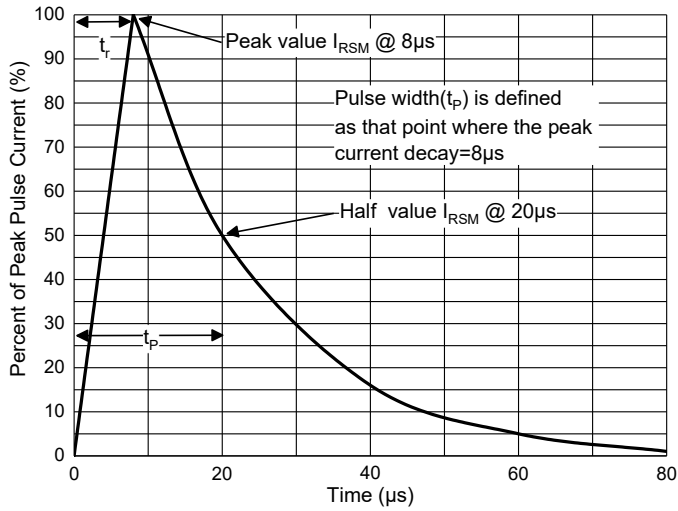


Fig. 2 - Non-Repetitive Peak Pulse Power

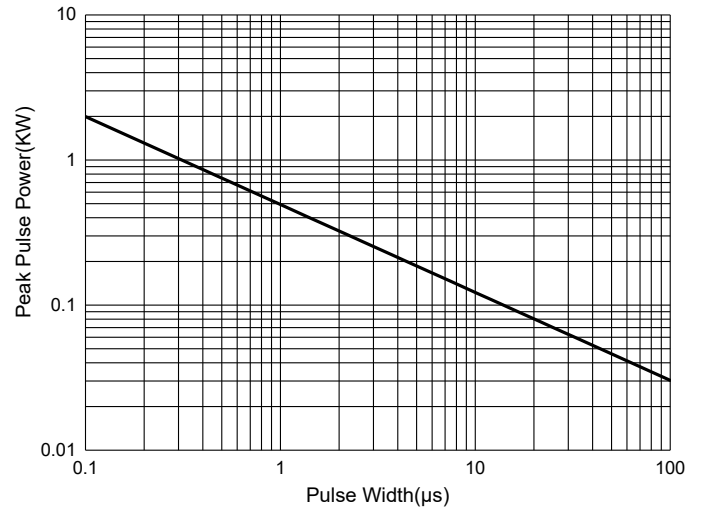


Fig. 3 - Capacitance Characteristics

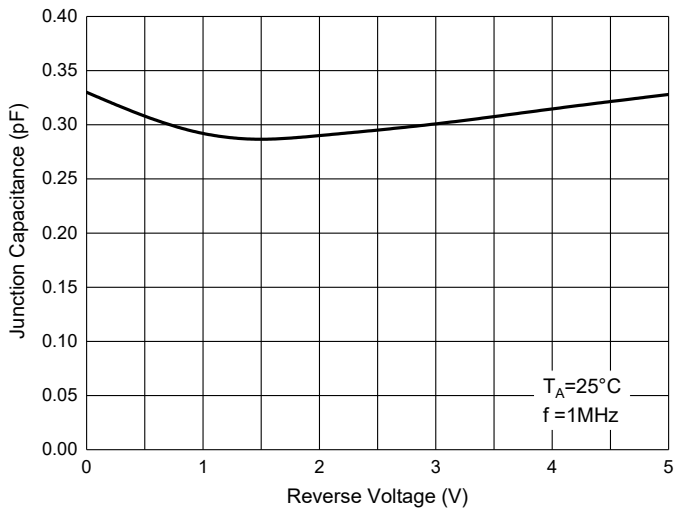


Fig. 4 - Clamping Voltage Characteristics

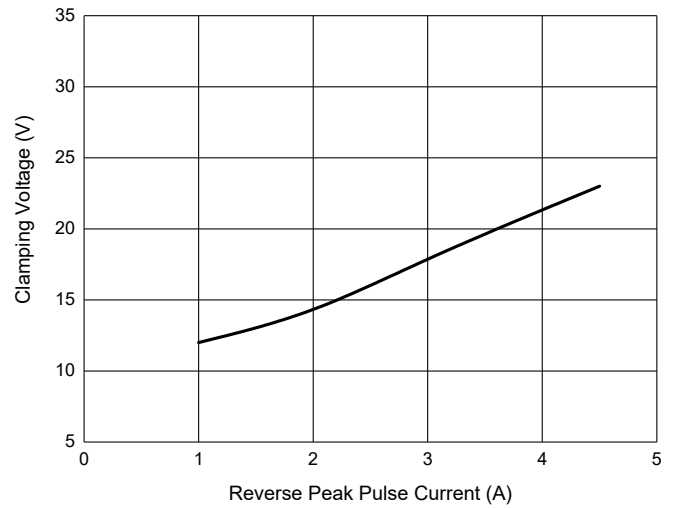
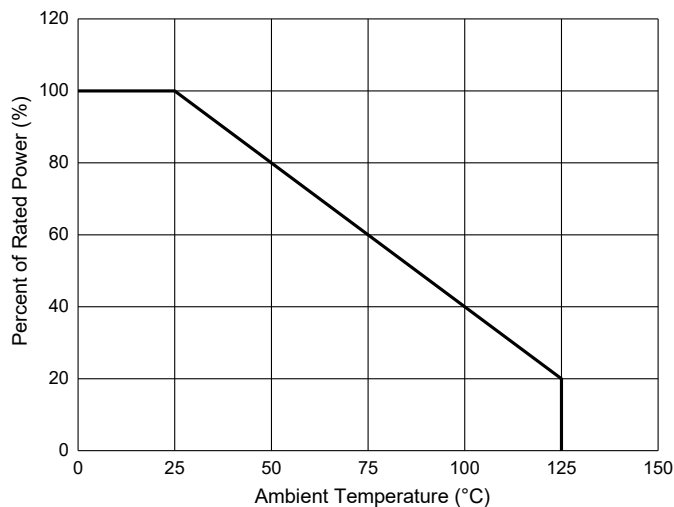


Fig. 5 - Pulse Derating Curve



Ordering Information

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

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