

Features

- For Sensitive ESD Protection
- Low Reverse Stand-Off Voltage
- Low Leakage
- Ultra-Low Clamping Voltage
- IEC 61000-4-2 Level 4 ESD Protection
- Moisture Sensitivity Level 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 +150°C
- Storage Temperature Range: -55°C to +150°C

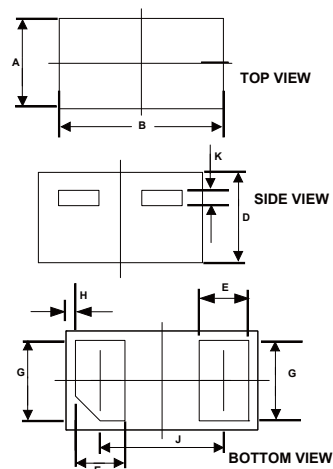
| MCC Part Number | Device Marking | |
|--------------------------------------|-----------------|----------------|
| ESDBL5V0AE1 | H | |
| IEC61000-4-2(ESD) | Air Contact | ±30KV ±30KV |
| ESD Voltage Per Human Body Model | | 16KV |
| ESD Voltage Machine Model | | 400V |
| Peak Pulse Power (8/20us Waveform) | P _{PP} | 62.5W |
| Peak Pulse Current (8/20us Waveform) | I _{PP} | 5A |

Pin Configuration



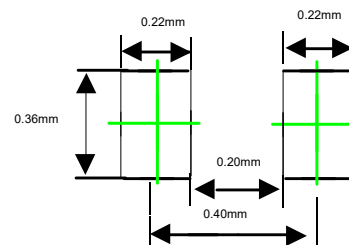
ESD Protection Device

0201



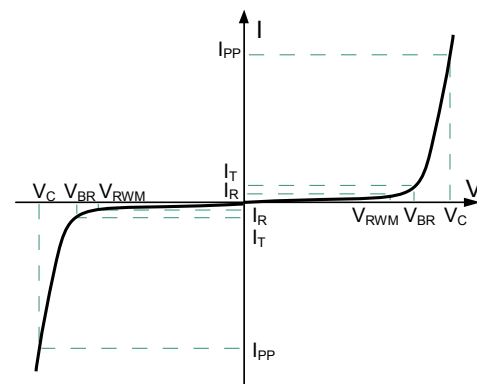
| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.011 | 0.015 | 0.270 | 0.370 | |
| B | 0.022 | 0.026 | 0.570 | 0.670 | |
| D | 0.011 | 0.013 | 0.275 | 0.340 | |
| E | 0.005 | 0.008 | 0.125 | 0.195 | |
| G | 0.009 | 0.012 | 0.225 | 0.295 | |
| H | 0.001 | | 0.030 | | TYP. |
| J | 0.014 | 0.017 | 0.365 | 0.435 | |
| K | 0.002 | | 0.050 | | TYP. |

SUGGESTED SOLDER PAD LAYOUT



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

| Symbol | Parameter |
|-----------|---|
| I_{PP} | Maximum Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| V_{RWM} | Working Peak Reverse Voltage |
| I_R | Maximum Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Breakdown Voltage @ I_T |
| I_T | Test Current |
| C | Capacitance @ $V_R=0$ and $f=1\text{MHz}$ |



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} | $I_T = 1\text{mA}$ | 5.8 | | 8 | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 5\text{V}$ | | | 0.1 | μA |
| Clamping Voltage | V_C | $I_{PP}=5\text{A}$, $t_p=8/20\mu\text{s}$ | | | 12.5 | V |
| Junction Capacitance | C_J | $V_R = 0\text{V}$, $f = 1\text{MHz}$ | | 10 | | pF |

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

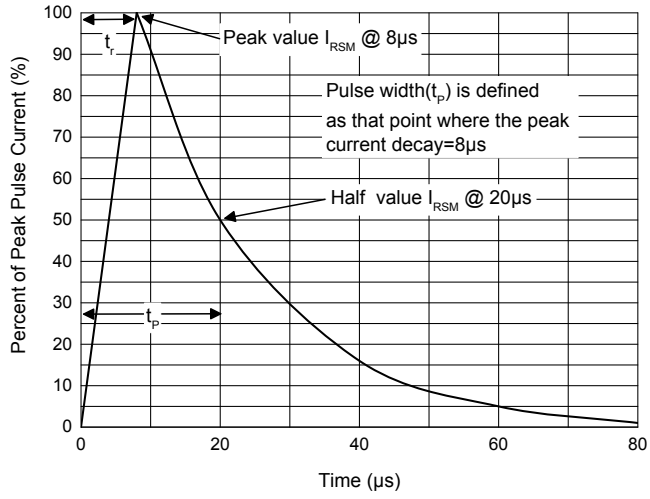
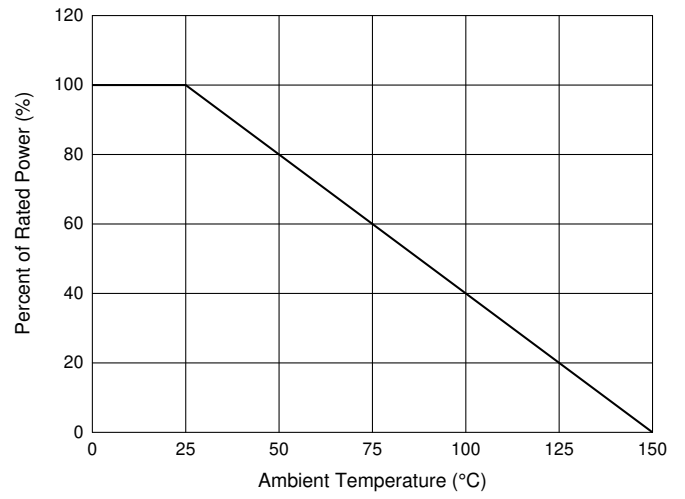


Fig. 2 - Pulse Derating Curve



Ordering Information

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

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