



Micro Commercial Components



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ESDBV5V0AE1

Features

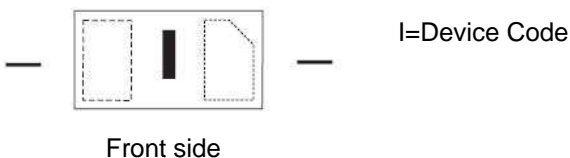
- For sensitive ESD protection
- Low reverse stand-off voltage:5V
- Low leakage
- Ultra-low clamping voltage
- IEC 61000-4-2 level 4 ESD protection
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

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

| Parameter | Symbol | Limits | unit |
|-------------------------------------|--------|--------|------|
| IEC61000-4-2(ESD) Air Contact | | ± 15 | KV |
| ESD Voltage per human body model | | 16 | KV |
| ESD Voltage Machine Modele | | 400 | V |
| Peak Pulse Power(8/20us Waveform) | Ppp | 52 | W |
| Peak Pulse Current(8/20us Waveform) | Ipp | 4 | A |

Marking Code:

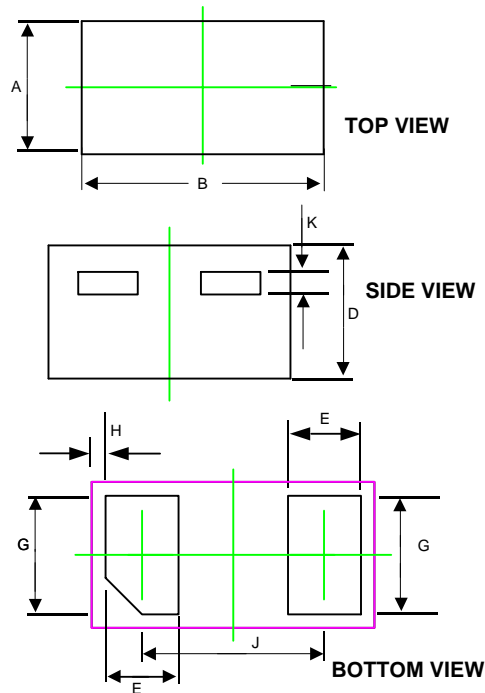


Pin Configuration



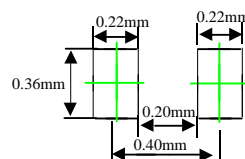
ESD Protection Device

0201



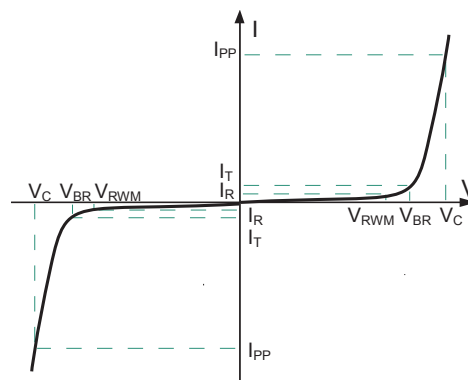
| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.011 | 0.015 | 0.27 | 0.37 | |
| B | 0.022 | 0.026 | 0.57 | 0.67 | |
| D | 0.011 | 0.013 | 0.275 | 0.34 | |
| E | 0.005 | 0.008 | 0.125 | 0.195 | |
| G | 0.009 | 0.012 | 0.225 | 0.295 | |
| H | 0.001 | REF. | 0.030 | REF. | |
| J | 0.014 | 0.017 | 0.365 | 0.435 | |
| K | 0.002 | REF. | 0.050 | REF. | |

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 |



Electrical characteristics per line @ 25 °C (unless otherwise specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|-------------------------|-----------|-------------------------------------|------|------|------|---------------|
| Working Voltage(note1) | V_{RWM} | | | | 5 | V |
| Breakdown Voltage | V_{BR} | $I_t = 1\text{mA}$ | 5.6 | | 8.0 | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 5\text{V}$ | | | 1 | μA |
| Clamping Voltage(note2) | V_C | $I_{PP} = 4\text{A}$ | | 10 | 13 | V |
| Total Capacitance | C_{tot} | $V_R = 0\text{V}$ $f = 1\text{MHz}$ | | 2 | | pF |

Note1: Other voltages available upon request.

Note2: Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.



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Ordering Information :

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

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