



Micro Commercial Components 20736 Marilla Street Chatsworth Chatsworth, CA 91311

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# **ESDBL5V0AE1**

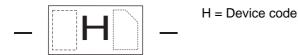
# **Features**

- 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

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

| Parameter                           |         | Symbol | Limits   | unit |
|-------------------------------------|---------|--------|----------|------|
| IEC61000-4-2(ESD)                   | Air     |        | $\pm 30$ | ΚV   |
|                                     | Contact |        | $\pm 30$ | ۸v   |
| ESD Voltage per human body model    |         |        | 16       | ΚV   |
| ESD Voltage Machine Modele          |         |        | 400      | V    |
| Peak Pulse Power(8/20us Waveform)   |         | Ppp    | 62.5     | W    |
| Peak Pulse Current(8/20us Waveform) |         | lpp    | 5        | Α    |

# Marking:

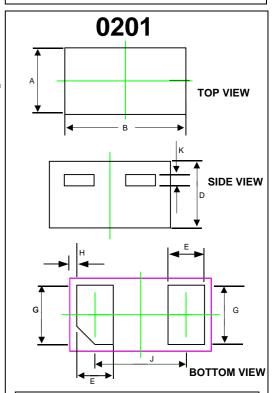


## **Pin Configuration**

Front side

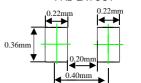


# **ESD Protection Device**



| DIMENSIONS |            |       |            |       |      |
|------------|------------|-------|------------|-------|------|
| DIM        | INCHES     |       | MM         |       | NOTE |
|            | MIN        | MAX   | MIN        | MAX   | NOTE |
| A          | 0.011      | 0.015 | 0.27       | 0.37  |      |
| В          | 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 |      |
| Н          | 0.001 REF. |       | 0.030 REF. |       |      |
| J          | 0.014      | 0.017 | 0.365      | 0.435 |      |
| K          | 0.002REF.  |       | 0.050REF.  |       |      |

SUGGESTED SOLDER

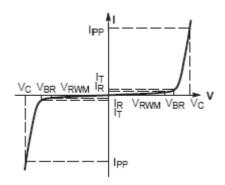




## **Micro Commercial Components**

## **ELECTRICAL CHARACTERISTICS** (T<sub>A</sub> = 25°C unless otherwise noted)

| Symbol           | Parameter  |  |  |
|------------------|--|--|--|
| I <sub>PP</sub>  | Maximum Reverse Peak Pulse Current                 |  |  |
| Vc               | Clamping Voltage @ I <sub>PP</sub>                 |  |  |
| V <sub>RWM</sub> | Working Peak Reverse Voltage                       |  |  |
| I <sub>R</sub>   | Maximum Reverse Leakage Current @ V <sub>RWM</sub> |  |  |
| $V_{BR}$         | Breakdown Voltage @ I <sub>T</sub>                 |  |  |
| I <sub>T</sub>   | Test Current                                       |  |  |



# Electrical characteristics per line@25 ( unless otherwise specified)

| Parameter               | Symbol           | Conditions                  | Min. | Тур. | Max. | Units |
|-------------------------|------------------|-----------------------------|------|------|------|-------|
| Working Voltage(note1)  | $V_{RWM}$        |                             |      |      | 5    | V     |
| Breakdown Voltage       | $V_{BR}$         | I <sub>t</sub> =1mA         | 5.8  |      | 8.0  | ٧     |
| Reverse Leakage Current | I <sub>R</sub>   | V <sub>RWM</sub> =5V        |      |      | 0.1  | μA    |
| Clamping Voltage(note2) | V <sub>C</sub>   | I <sub>PP</sub> =5A         |      |      | 12.5 | V     |
| Total Capacitance       | C <sub>tot</sub> | V <sub>R</sub> =0V f = 1MHz |      | 10   |      | pF    |

Note1: Other voltages available upon request.

Note2: Non-repetitive current pulse 8/20us 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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