



**THE DATASHEET OF  
ESD5V0D3B-TP**





Micro Commercial Components



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# ESD5V0D3B

## 5.0Volts ESD Protection Devices

### Features

- Halogen free available upon request by adding suffix "-HF"
- For sensitive ESD protection
- Low clamping voltage
- Low leakage
- Protects one power or I/O port
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

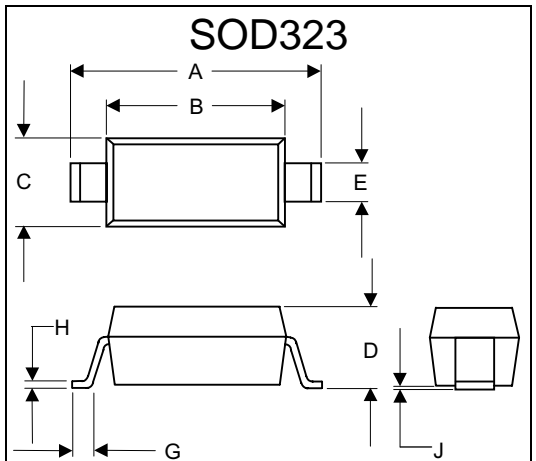
### Maximum Ratings

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

| Parameter                        | Symbol          | Limits     | unit |
|----------------------------------|-----------------|------------|------|
| IEC61000-4-2(ESD)<br>Air Contact |                 | ±25<br>±25 | KV   |
| IEC 61000-4-5 (8/20us)           |                 | 8          | A    |
| Power Dissipation                | P <sub>pp</sub> | 120        | W    |

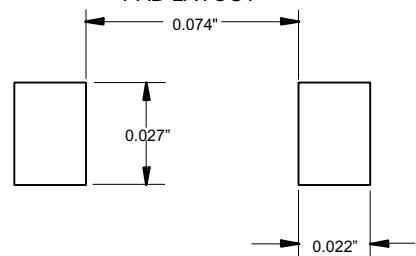


Marking: B5/5•C



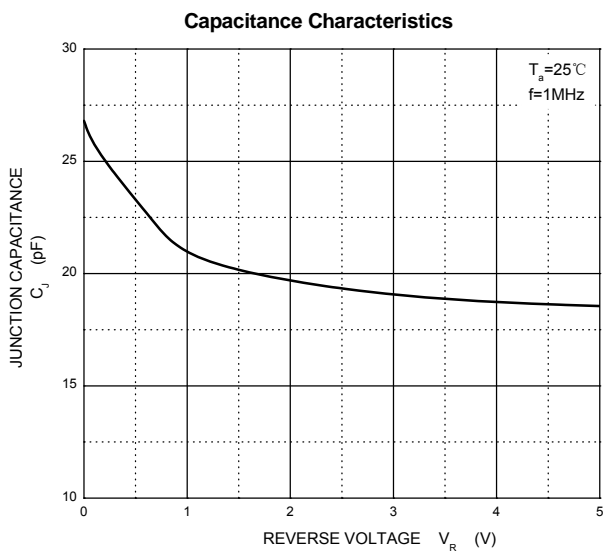
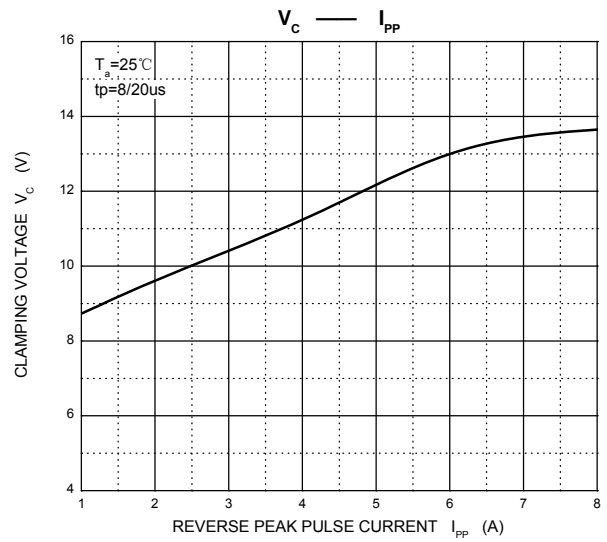
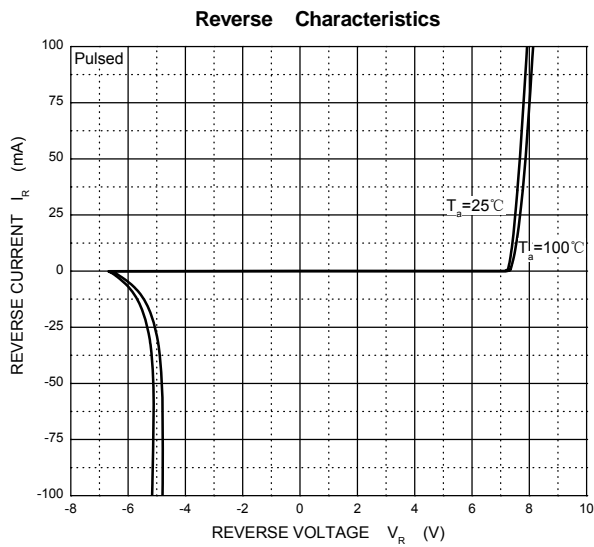
| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .090   | .107 | 2.30  | 2.70 |      |
| B   | .063   | .071 | 1.60  | 1.80 |      |
| C   | .045   | .053 | 1.15  | 1.35 |      |
| D   | .031   | .045 | 0.80  | 1.15 |      |
| E   | .010   | .016 | 0.25  | 0.40 |      |
| G   | .004   | .018 | 0.10  | 0.45 |      |
| H   | .004   | .010 | 0.10  | 0.25 |      |
| J   | -----  | .006 | ----- | 0.15 |      |

#### SUGGESTED SOLDER PAD LAYOUT



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

| Parameter                 | Symbol    | Conditions                                   | Min. | Typ. | Max. | Units         |
|---------------------------|-----------|--|------|------|------|---------------|
| Reverse stand-off voltage | $V_{RWM}$ |  |      |      | 5    | V             |
| Reverse Breakdown voltage | $V_{BR}$  | $I_t = 1\text{mA}$                           | 5.8  |      | 8.8  | V             |
| Reverse Leakage Current   | $I_R$     | $V_{RWM} = 5\text{V}$ $T=25^\circ\text{C}$   |      |      | 1    | $\mu\text{A}$ |
| Clamping Voltage          | $V_C$     | $I_{PP} = 8\text{A}$ $t_p = 8/20\mu\text{s}$ |      |      | 15   | V             |
| Junction Capacitance      | $C_j$     | $V_R=0\text{V}$ $f = 1\text{MHz}$            |      | 27   |      | pF            |





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Ordering Information :

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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