



Micro Commercial Components



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# ESD5V0D9B

## ESD Protection Device

### Features

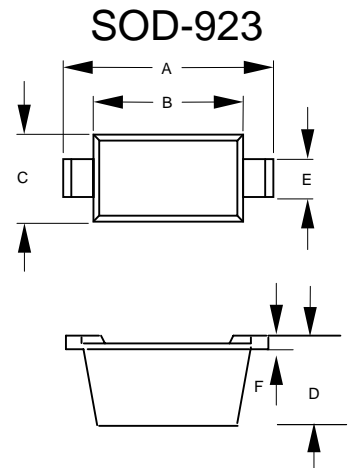
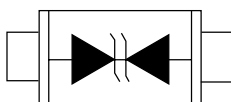
- Halogen free available upon request by adding suffix "-HF"
- For sensitive ESD protection
- Excellent clamping capability
- Low leakage
- ESD rating of class 3(>16KV)per Human Body Mode
- Fast response ,response time less than 1ns.
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. 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

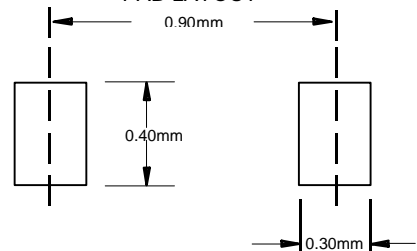
| Parameter                       | Symbol | Limits    | unit |
|---------------------------------|--------|-----------|------|
| IEC61000-4-2(ESD) Air Contact   |        | ±15<br>±8 | KV   |
| ESD Voltage per human body mode |        | 16        | KV   |
| Peak Pulse Power(8/20us)        | Ppp    | 80        | W    |

### Pin Configuration-Top View



| DIM | DIMENSIONS |      |      |      | NOTE |
|-----|------------|------|------|------|------|
|     | INCHES     |      | MM   |      |      |
|     | MIN        | MAX  | MIN  | MAX  |      |
| A   | .037       | .041 | 0.95 | 1.05 |      |
| B   | .030       | .033 | 0.75 | 0.85 |      |
| C   | .022       | .026 | 0.55 | 0.65 |      |
| D   | .014       | .017 | 0.36 | 0.43 |      |
| E   | .006       | .010 | 0.15 | 0.25 |      |
| F   | .003       | .007 | 0.07 | 0.17 |      |

### SUGGESTED SOLDER PAD LAYOUT

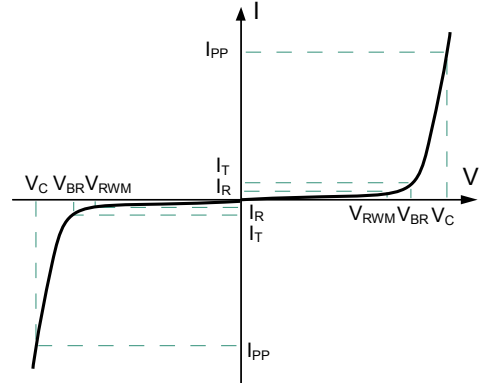




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**ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

| 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 per line @25 °C ( unless otherwise specified)**

| Parameter               | Symbol    | Conditions                        | Min. | Typ. | Max. | Units         |
|-------------------------|-----------|-----------------------------------|------|------|------|---------------|
| Working Voltage         | $V_{RWM}$ |                                   |      |      | 5    | V             |
| Breakdown Voltage       | $V_{BR}$  | $I_t = 1\text{mA}$                | 5.6  | 6.7  | 7.8  | V             |
| Reverse Leakage Current | $I_R$     | $V_{RWM} = 5\text{V}$             |      |      | 1    | $\mu\text{A}$ |
| Junction Capacitance    | $C_j$     | $V_R=0\text{V}$ $f = 1\text{MHz}$ |      | 15   |      | pF            |

**Typical Characteristics**

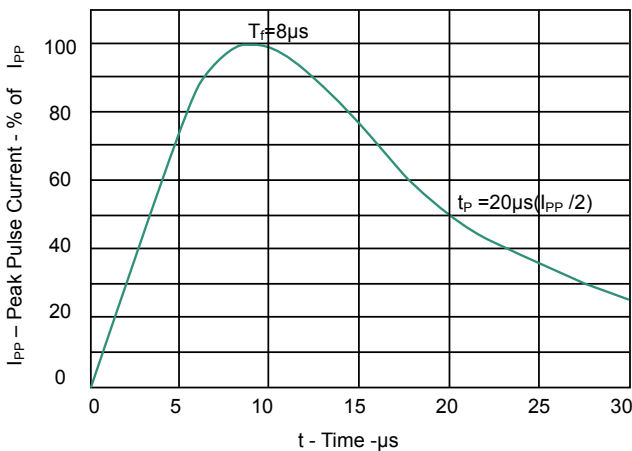


Fig 1.Pulse Waveform

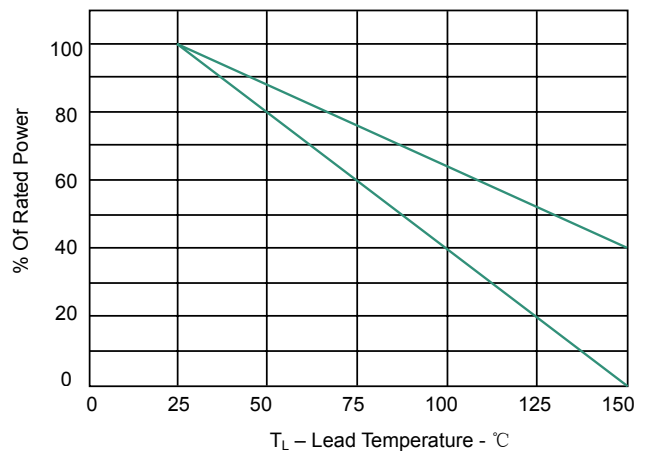


Fig 2.Power Derating Curve



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### Ordering Information :

| Device         | Packing               |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 8Kpcs/Reel |

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

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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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