



Micro Commercial Components



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ESD5V0D9B

ESD Protection Device

Features

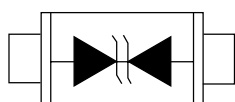
- Halogen free available upon request by adding suffix "-HF"
- For sensitive ESD protection
- Excellent clamping capability
- Low leakage
- ESD rating of class 3(>16KV)per Human Body Mode
- Fast response ,response time less than 1ns.
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

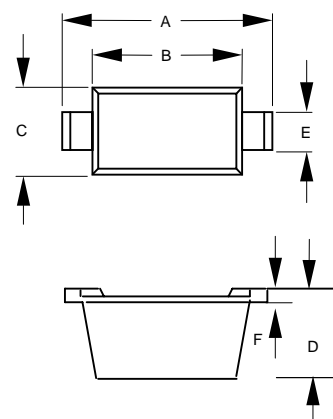
- Operating Junction & Storage Temperature: -55°C to +150°C

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

Pin Configuration-Top View

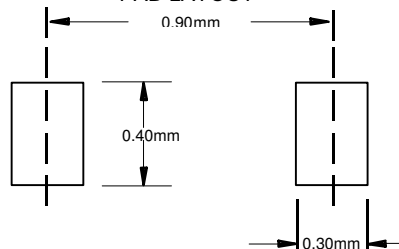


SOD-923



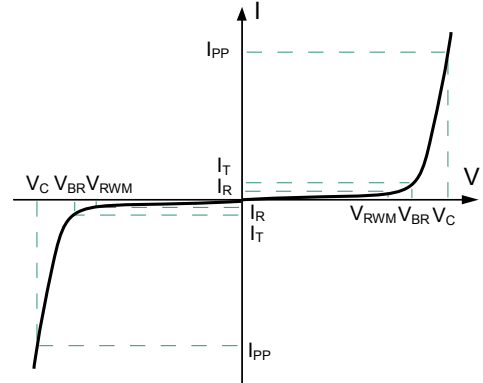
| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .037 | .041 | 0.95 | 1.05 | |
| B | .030 | .033 | 0.75 | 0.85 | |
| C | .022 | .026 | 0.55 | 0.65 | |
| D | .014 | .017 | 0.36 | 0.43 | |
| E | .006 | .010 | 0.15 | 0.25 | |
| F | .003 |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

SUGGESTED SOLDER PAD LAYOUT



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 | μA |
| Junction Capacitance | C_j | $V_R=0\text{V}$ $f = 1\text{MHz}$ | | 15 | | pF |

Typical Characteristics

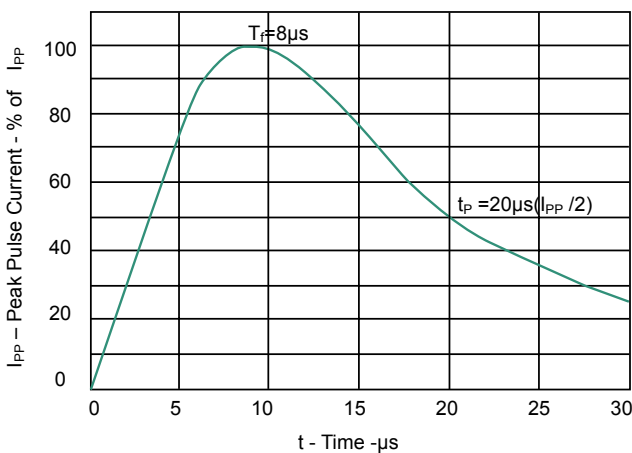


Fig 1.Pulse Waveform

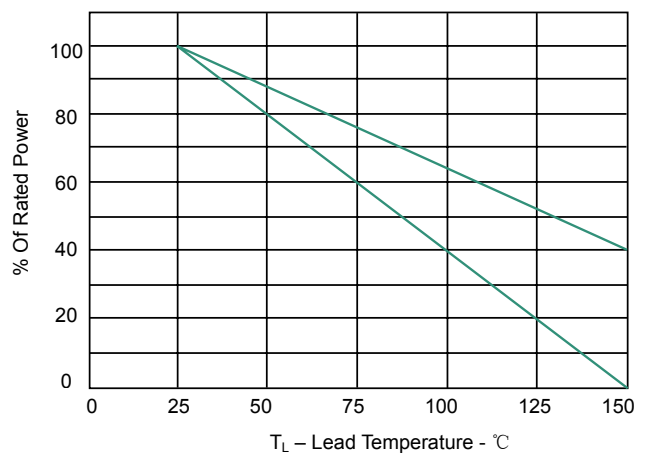


Fig 2.Power Derating Curve



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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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