



THE DATASHEET OF ESDLC5V0T5-TP





Micro Commercial Components

Micro Commercial Components
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ESDLC5V0T5

5 Volts ESD Protection Devices

SOT-523

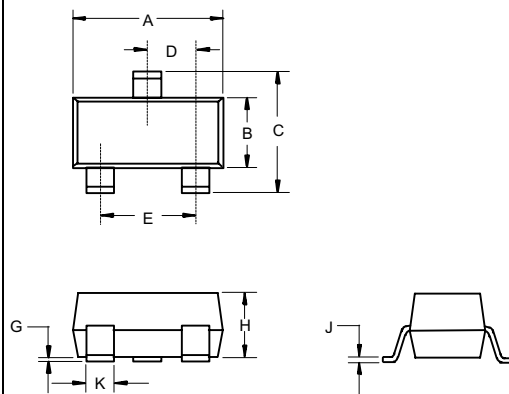
Features

- Halogen free available upon request by adding suffix "-HF"
- For sensitive ESD protection
- Excellent clamping capability
- Low leakage
- Working voltage: 5V
- For space saving application
- Fast response ,response time less than 1ns.
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensivity Level 1

Maximum Ratings

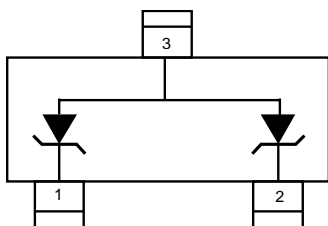
- Operating Junction & Storage Temperature: -55°C to +150°C

| Parameter | Symbol | Limits | unit |
|----------------------------------|--------|---------------------|------|
| IEC61000-4-2(ESD) Air Contact | | ± 15 ± 8 | KV |
| Peak Power Dissipation@8/20us | Ppk | 125 | W |



| DIM | DIMENSIONS | | | | NOTE |
|-----|--------------|------|-------------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .059 | .067 | 1.50 | 1.70 | |
| B | .030 | .033 | 0.75 | 0.85 | |
| C | .057 | .069 | 1.45 | 1.75 | |
| D | .020 Nominal | | 0.50Nominal | | |
| E | .035 | .043 | 0.90 | 1.10 | |
| G | .000 | .004 | .000 | .100 | |
| H | .028 | .031 | .70 | 0.80 | |
| J | .004 | .008 | .100 | .200 | |
| K | .010 | .014 | .25 | .35 | |

Pin Configuration



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

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|---------------------------|-----------|---|------|------|------|---------|
| Reverse Stand-off Voltage | V_{RWM} | | | | 5 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_t = 1mA$ | 5.6 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 5V$ | | | 1 | μA |
| Clamping Voltage | V_C | $I_{PP} = 1A, t_P = 8/20\mu s$ pin1 to pin2 | | | 13.5 | V |
| Clamping Voltage | V_C | $I_{PP} = 5A, t_P = 8/20\mu s$ pin1 or pin2 to pin3 | | | 20.0 | V |
| Clamping Voltage | V_C | $I_{PP} = 5A, t_P = 8/20\mu s$ pin1 to pin2 | | | 23.0 | V |
| Junction Capacitance | C_j | $V_R = 0V, f = 1MHz$ Pin1 to Pin2 | | 1.4 | 2 | pF |
| Junction Capacitance | C_j | $V_R = 0V, f = 1MHz$ pin1 or pin2 to pin3 | | 2.8 | 3.5 | pF |

Typical Characteristics

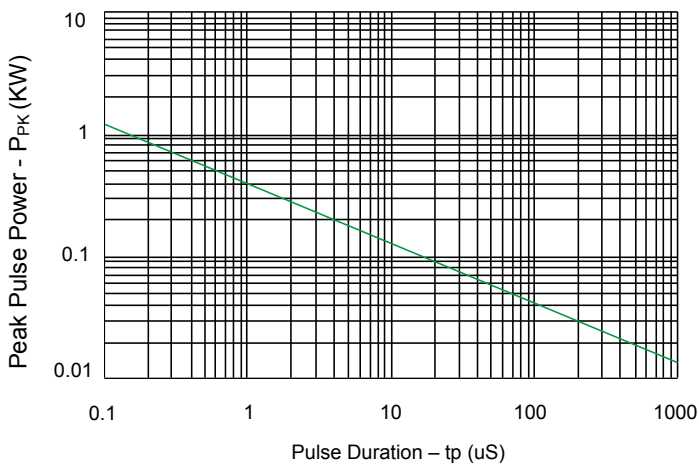


Fig1. Non-Repetitive Peak Pulse Power vs. Pulse time

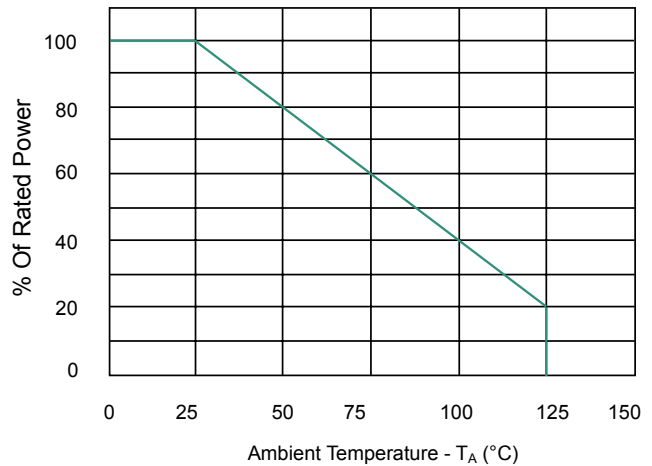


Fig2. Power Derating Curve

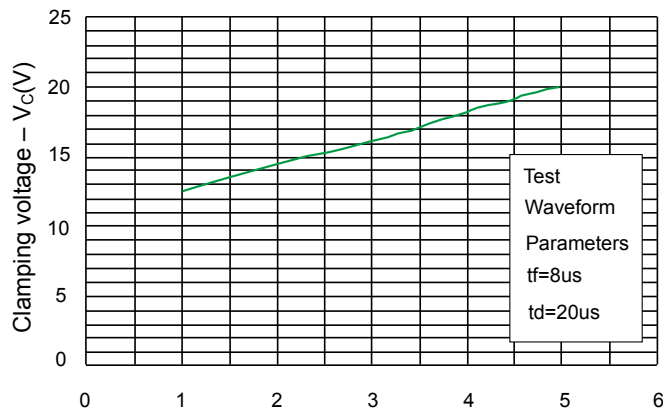


Fig 3. Clamping Voltage vs. peak Pulse Current (Pin 1 to Pin 2)

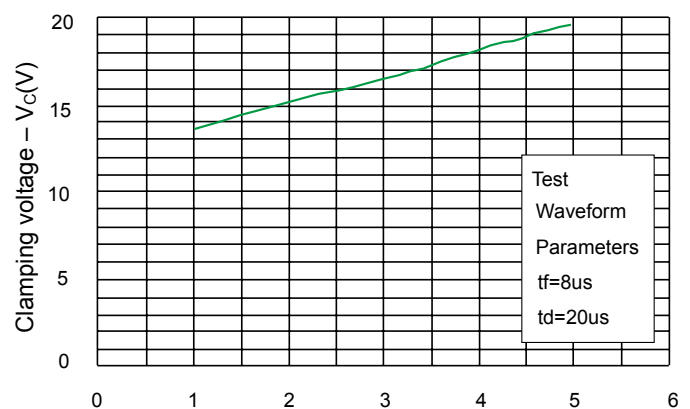


Fig 4. Clamping Voltage vs. peak Pulse Current (Pin 1 or Pin 2 to Pin 3)



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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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