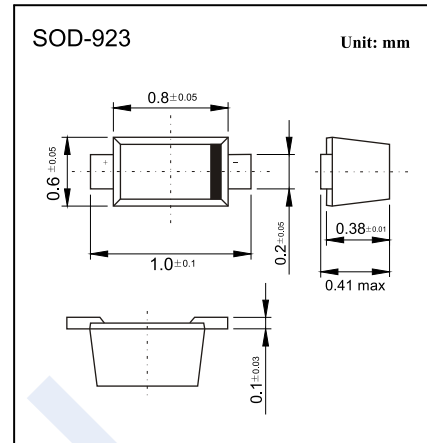


ESD Protection Diodes

ESD9B5V

■ Features

- Low Leakage
- Fast Response Time < 1 ns
- Protects One Power or I/O Port
- ESD Rating of Class 3 (>16KV) per Human Body Model



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|---|------------------|------------|------|
| IEC 61000-4-2 (ESD) Contact | | ±8 | KV |
| IEC 61000-4-2 (EFT) | | 40 | A |
| Power Dissipation (Note 1) | P _D | 150 | mW |
| Thermal Resistance Junction to Ambient | R _{θJA} | 400 | °C/W |
| Lead Solder Temperature - Maximum (10 Second Duration) | T _L | 260 | °C |
| Junction Temperature | T _J | 150 | |
| Storage Temperature range | T _{stg} | -55 to 150 | |

Note.1:FR-5 = 1.0*0.75*0.62 in.

■ Electrical Characteristics Ta = 25°C

| Device | Device Marking | V _{RWM} (V) | I _R (uA) @ V _{RWM} | V _{BR} (V) @ I _T (Note 1) | | I _T (mA) | C (pF) |
|---------|----------------|----------------------|---|--|-----|---------------------|--------|
| | | Max | Max | Min | Max | | Max |
| ESD9B5V | | 5.0 | 1.0 | 5.8 | 7.8 | 1.0 | 15 |

Note.1. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C

ESD Protection Diodes

ESD9B5V

■ Typical Characteristics

| 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} |
| I_T | Test Current |
| V_{BR} | Breakdown Voltage @ I_T |

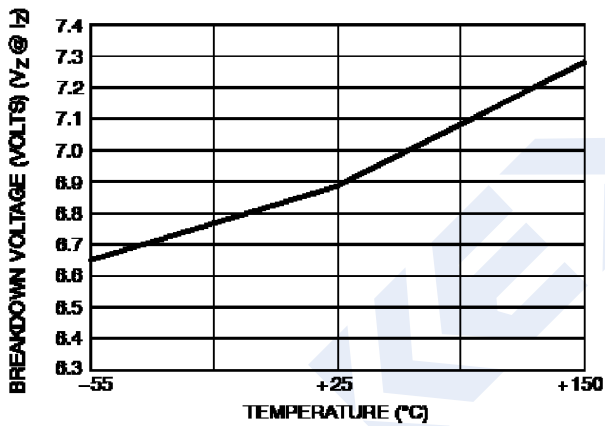
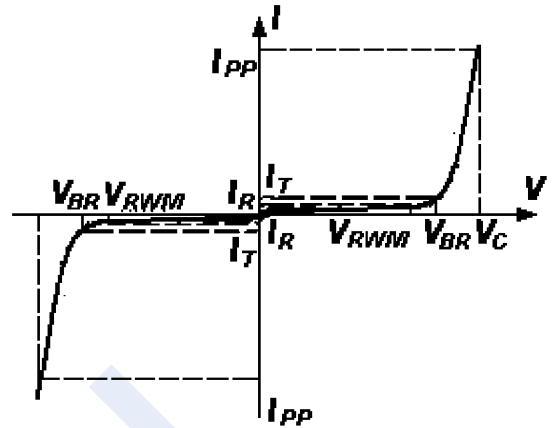


Figure 1. Typical Breakdown Voltage versus Temperature

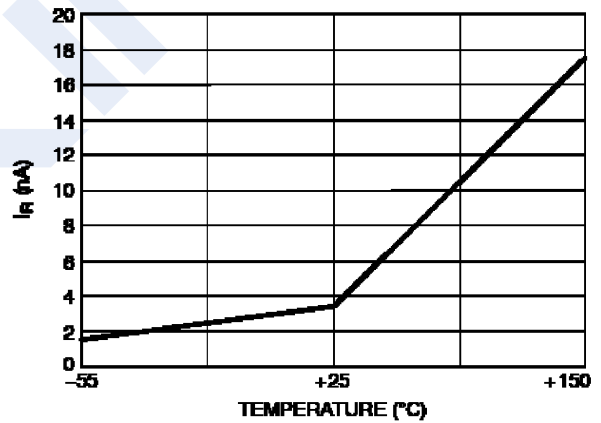


Fig 2. Typical Leakage Current versus Temperature