

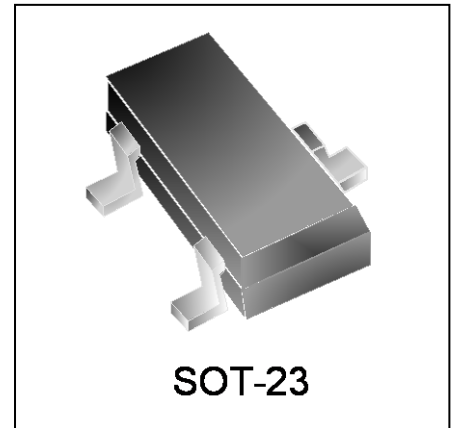


Features

- 350 watts peak pulse power ($t_p = 8/20\mu s$)
- Response Time is Typically < 1 ns
- Protects one bidirectional line or two unidirectional lines
- Working Voltages: 24V
- Low clamping voltages

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) ± 30 kV (air), ± 30 kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 6.5A (8/20 μs)



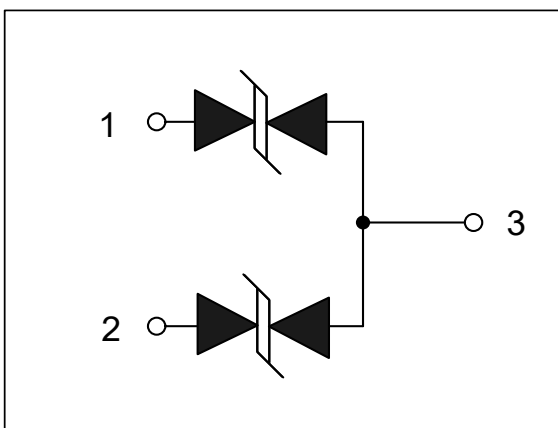
Mechanical Characteristics

- JEDEC SOT-23 package
- Molding compound flammability rating:
- UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant

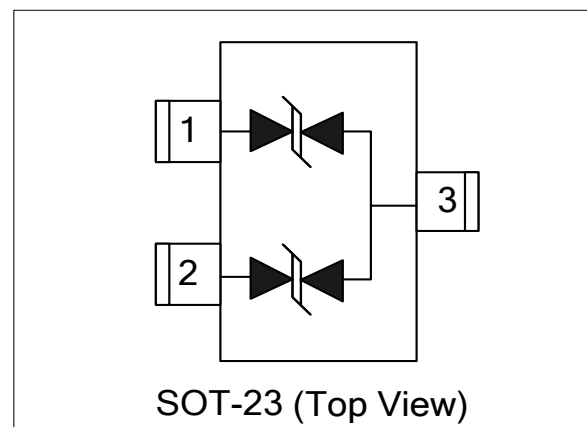
Applications

- Automotive Networks
- Control & Monitoring Systems
- Portable Electronics
- Set-Top Box
- Servers, Notebook, and Desktop PC
- Wireless Bus Protection

Circuit Diagram



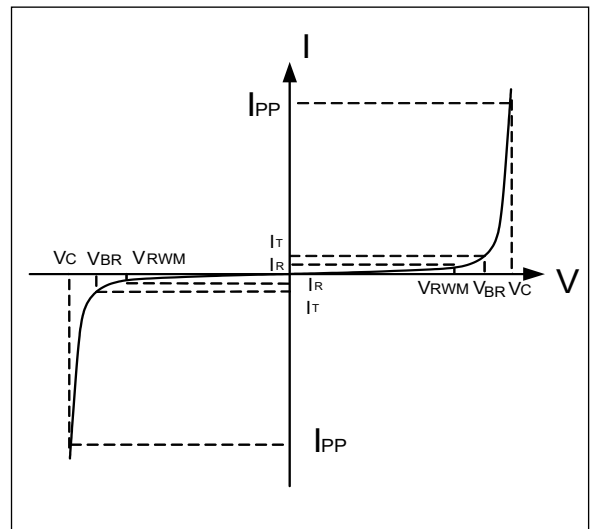
Schematic & PIN Configuration



| Absolute Maximum Rating | | | |
|--------------------------------------|-----------|--------------|-------------|
| Rating | Symbol | Value | Units |
| Peak Pulse Power ($t_p=8/20\mu s$) | P_{PP} | 350 | Watts |
| Lead Soldering Temperature | T_L | 260(10sec) | $^{\circ}C$ |
| Operating Temperature | T_J | -55 to + 125 | $^{\circ}C$ |
| Storage Temperature | T_{STG} | -55 to +150 | $^{\circ}C$ |

Electrical Parameters (T=25 $^{\circ}C$)

| Symbol | Parameter |
|-----------|-------------------------------------|
| I_{PP} | Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| V_{RWM} | Reverse Stand-Off Voltage |
| I_R | Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Breakdown Voltage @ I_T |
| I_T | Test Current |



Electrical Characteristics

| DW24M2T-B-S | | | | | | |
|---------------------------|-----------|--|---------|---------|---------|-------|
| Parameter | Symbol | Conditions | Minimum | Typical | Maximum | Units |
| Reverse Stand-Off Voltage | V_{RWM} | | | | 24 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T=1mA$ | 26.2 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=24V, T=25^{\circ}C$ | | | 200 | nA |
| Peak Pulse Current | I_{PP} | $t_p=8/20\mu s$ | | | 6.5 | A |
| Maximum Clamping Voltage | V_C | $I_{PP}=6.5A, t_p=8/20\mu s$ | | 40 | 52 | V |
| Junction Capacitance | C_j | Pin 1 to 3 or Pin 2 to 3 $V_R=0V, f=1MHz$ | | 30 | 40 | pF |

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

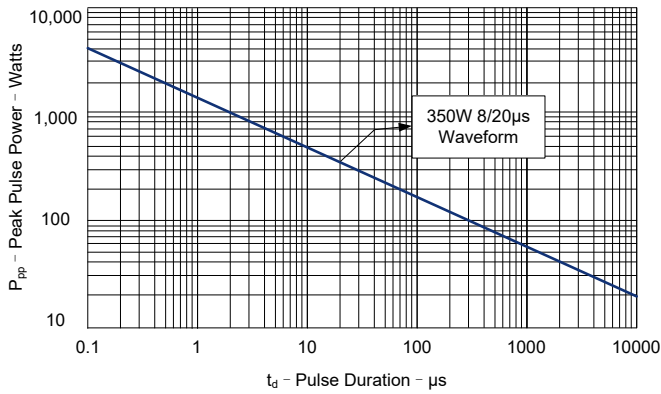


Figure 2: Power Derating Curve

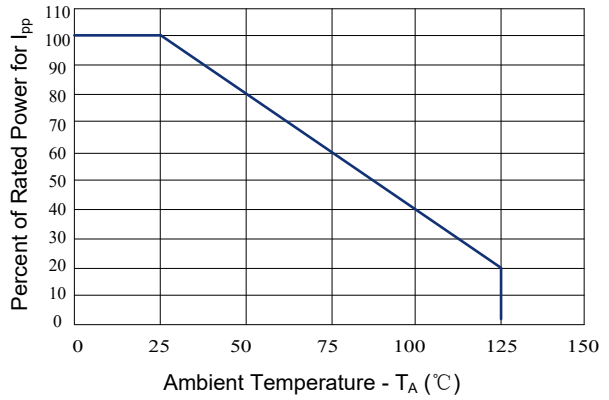


Figure 3: Clamping Voltage vs. Peak Pulse Current

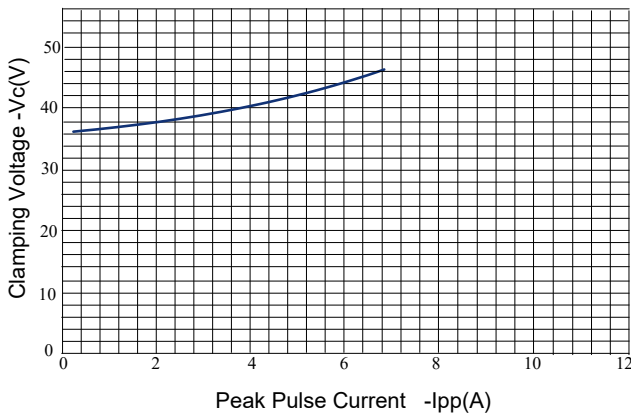


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

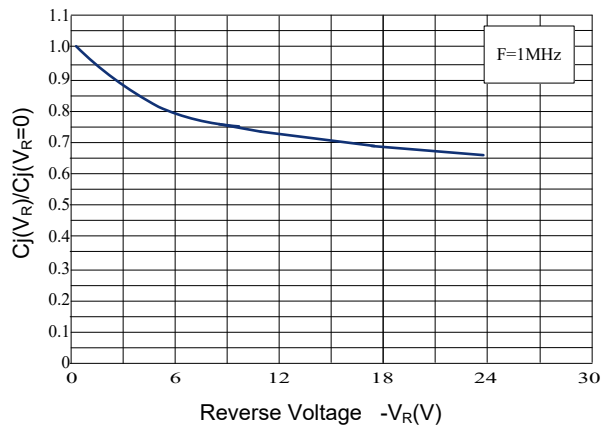
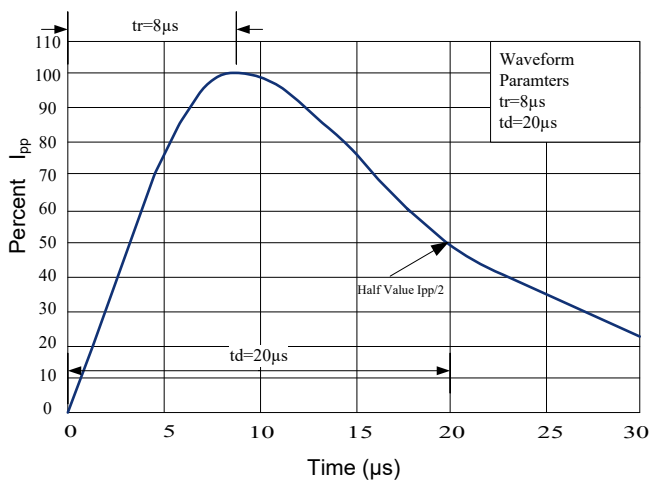
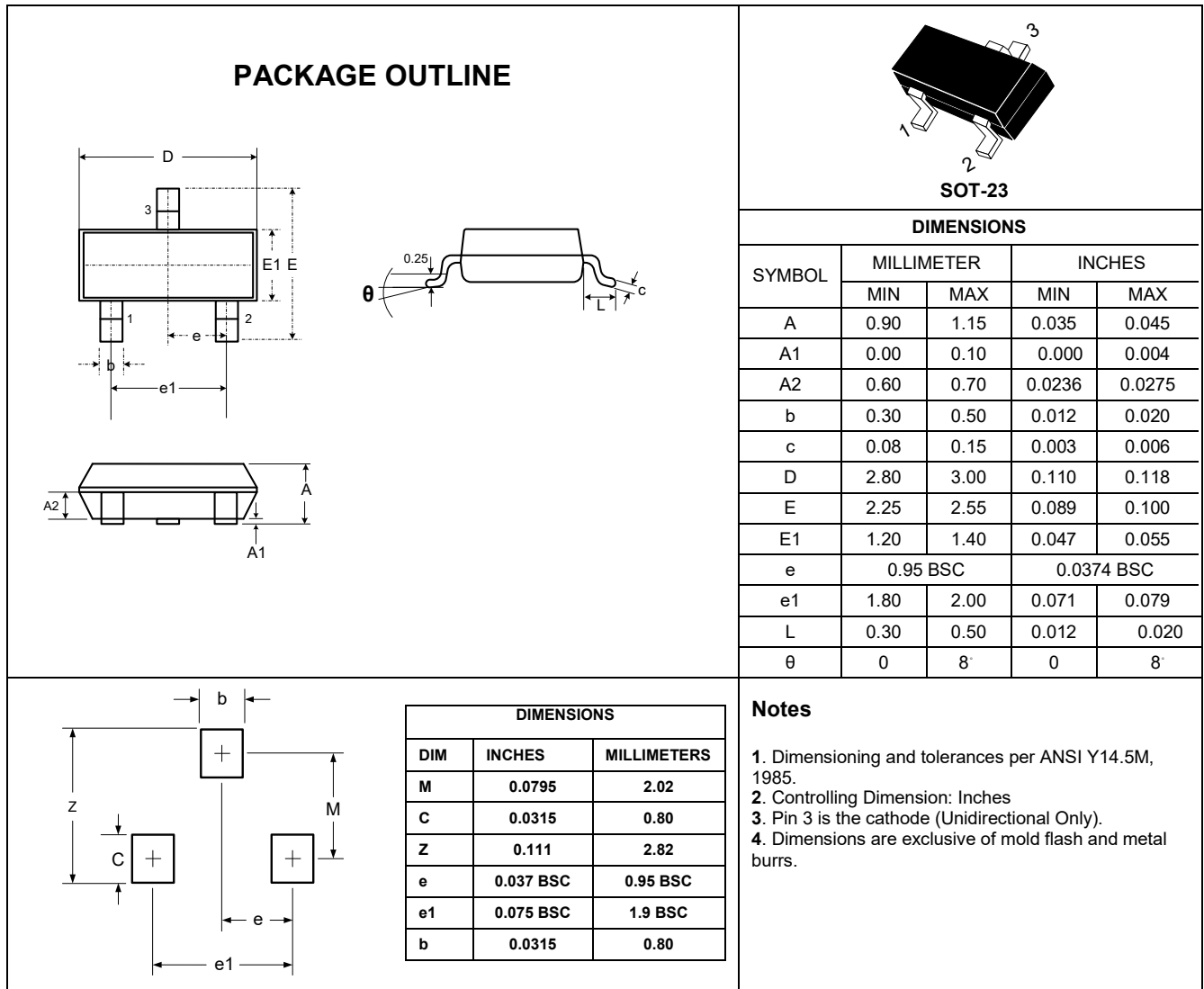


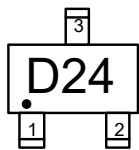
Figure 5: Pulse Waveform



Outline Drawing – SOT-23



Marking Codes



Package Information

Qty: 3k/Reel