



Features

- 350 watts peak pulse power ($t_p = 8/20\mu s$)
- Low Clamping Voltage
- Working Voltages: 15V
- Low Leakage Current
- Response Time is Typically $< 1\text{ ns}$

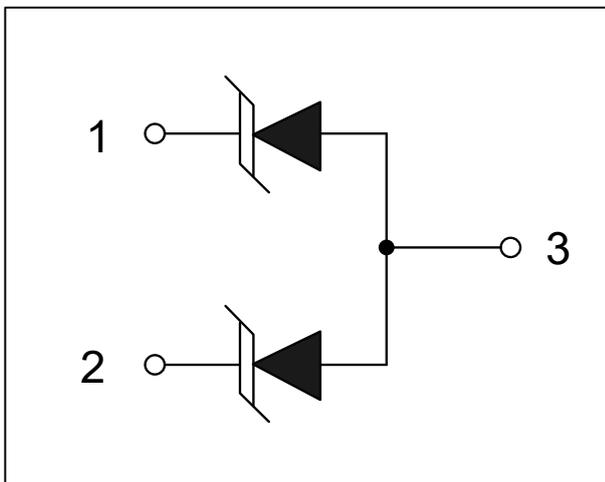
IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 10A (8/20 μs)

Mechanical Characteristics

- JEDEC SOT23 package
- Molding compound flammability rating: UL 94V-0
- Marking: Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant

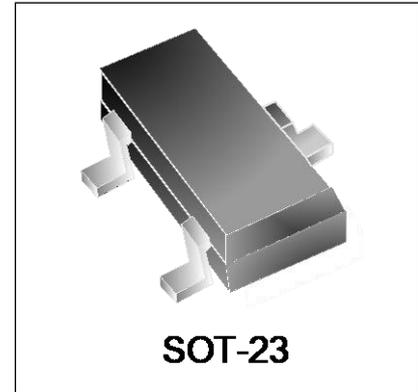
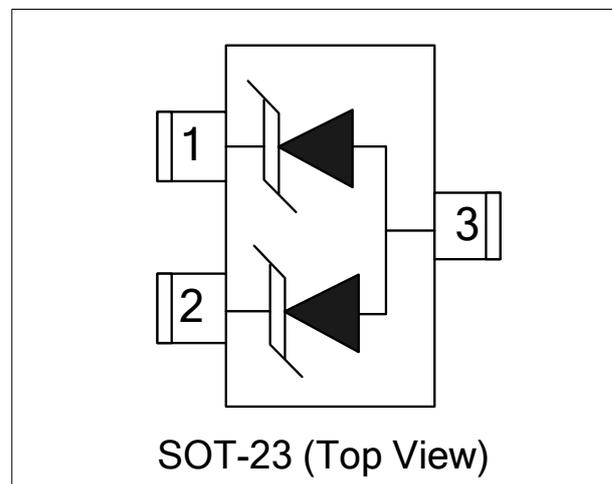
Circuit Diagram



Applications

- RS-232, RS-422 & RS-485
- Cellular Handsets and Accessories
- Control & Monitoring Systems
- Portable Electronics
- Set-Top Box
- Servers, Notebook, and Desktop PC
- Wireless Bus Protection

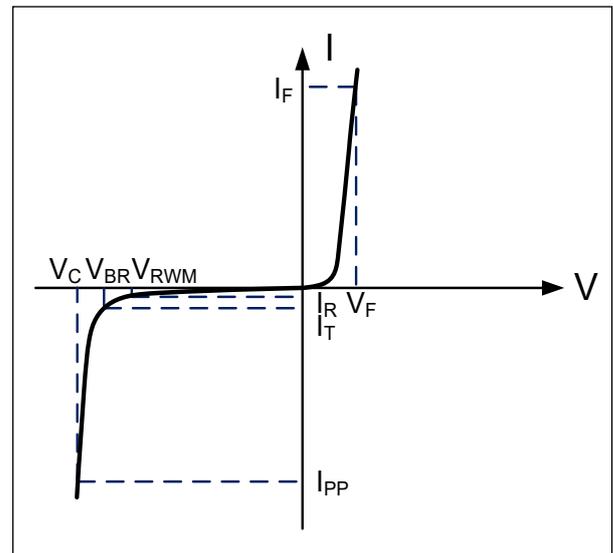
Schematic & PIN Configuration



| Absolute Maximum Rating | | | |
|--|-----------|--------------|-------------|
| Rating | Symbol | Value | Units |
| Peak Pulse Power ($t_p=8/20\mu s$) | P_{PP} | 350 | W |
| Peak Pulse Current ($t_p=8/20\mu s$) | I_{PP} | 10 | A |
| 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} | Working Peak Reverse Voltage |
| I_R | Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Breakdown Voltage @ I_T |
| I_T | Test Current |
| I_F | Forward Current |
| V_F | Forward Voltage @ I_F |



Electrical Characteristics

| DW15M2T-S | | | | | | |
|---------------------------|-----------|---|---------|---------|---------|---------|
| Parameter | Symbol | Conditions | Minimum | Typical | Maximum | Units |
| Reverse Stand-Off Voltage | V_{RWM} | | | | 15 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T=1mA$ | 16.7 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=15V, T=25^{\circ}C$ | | | 1 | μA |
| Clamping Voltage | V_C | $I_{PP}=1A, t_p=8/20\mu s$ | | | 24 | V |
| Maximum Clamping Voltage | V_C | $I_{PP}=10A, t_p=8/20\mu s$ | | 30 | 35 | V |
| Junction Capacitance | C_j | Pin 1 to 2 $V_R = 0V, f = 1MHz$ | | 25 | 28 | pF |
| Junction Capacitance | C_j | Pin 1 to 3 and Pin 2 to 3 $V_R = 0V, f = 1MHz$ | | 45 | | pF |

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

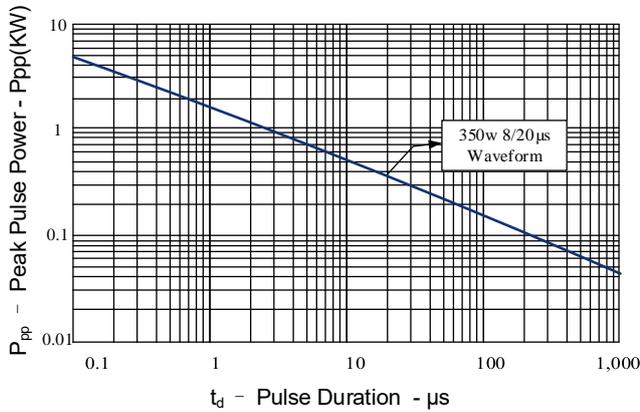


Figure 2: Power Derating Curve

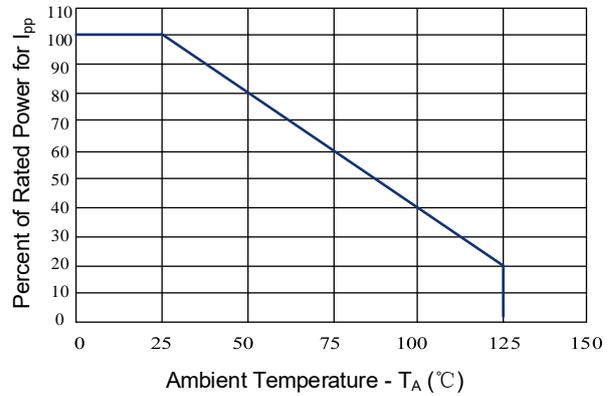


Figure 3: Clamping Voltage vs. Peak Pulse Current

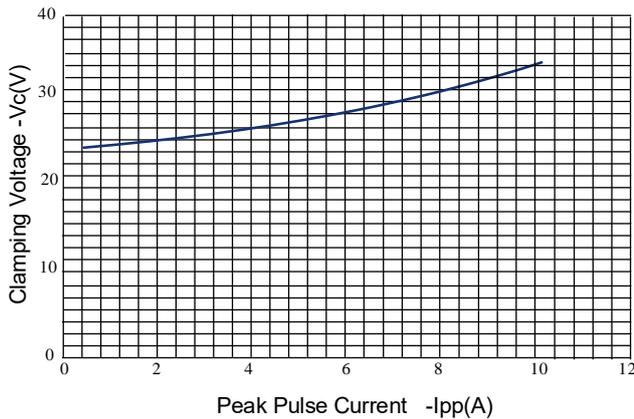


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

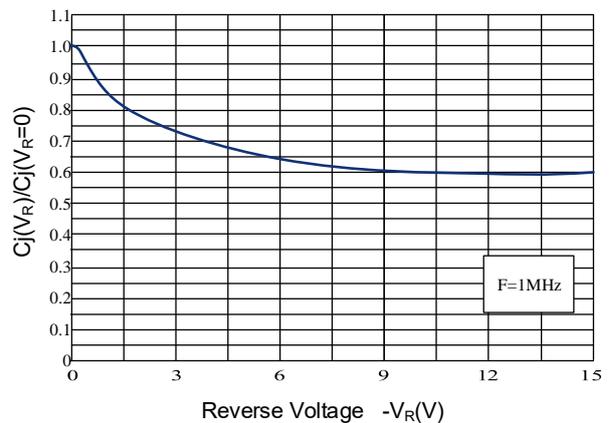
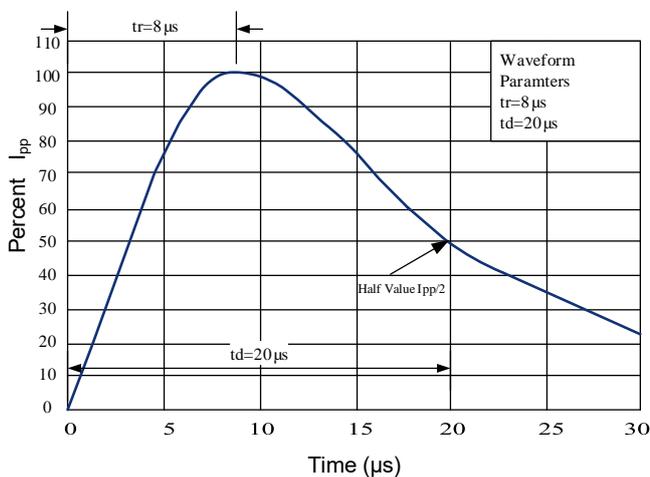
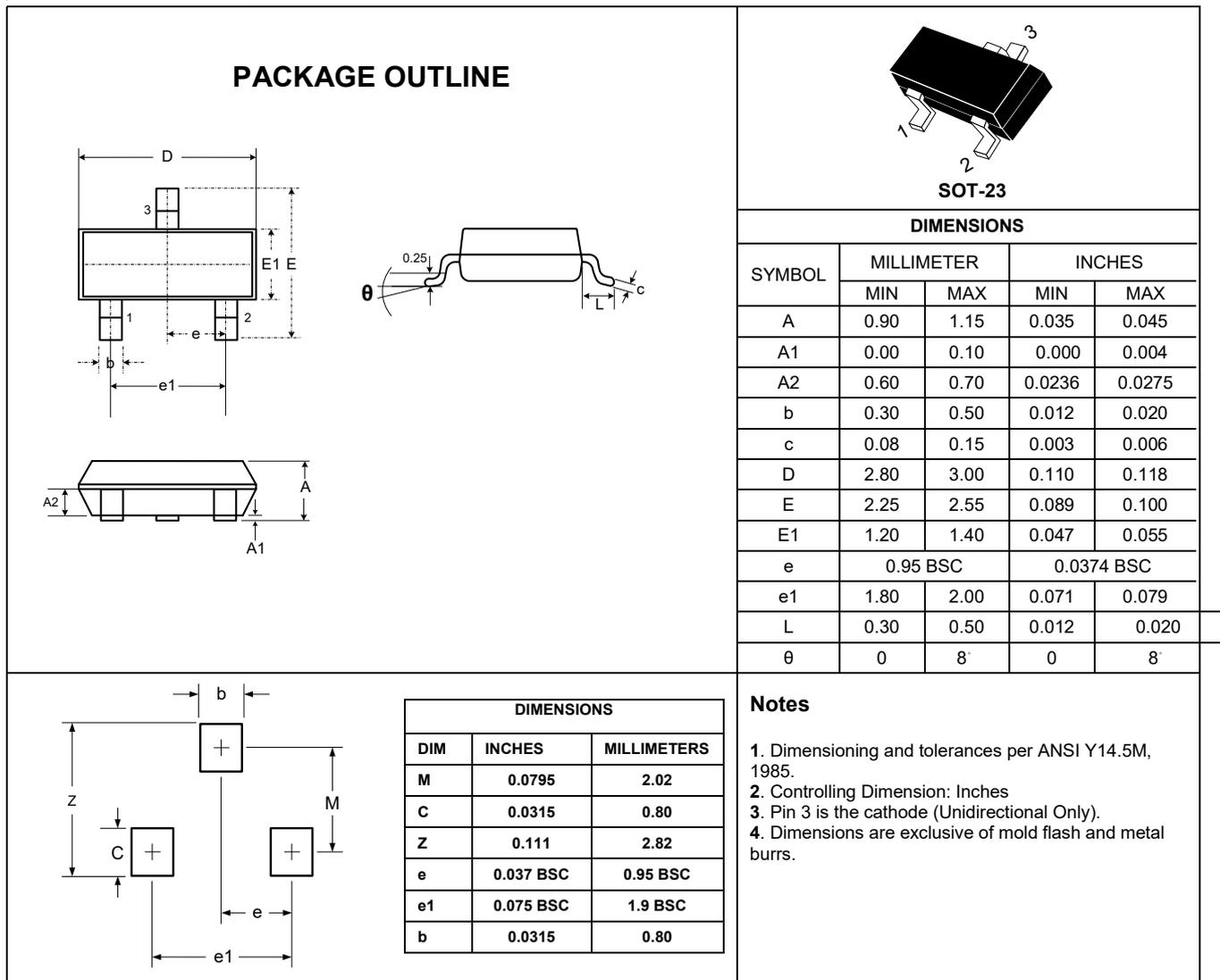


Figure 5: Pulse Waveform



Outline Drawing – SOT-23



Marking Codes

| | |
|--------------|-----------|
| Part Number | DW15M2T-S |
| Marking Code | BM2 |

Package Information

Qty: 3k/Reel