



Features

- 600 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- Replacement for MLV (0603)
- Protects one I/O or power line
- Low Clamping Voltage
- Working Voltage: 36 V
- Low Leakage Current
- Response Time is Typically < 1 ns



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) ± 15 kV (air), ± 8 kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 6A (8/20 μs)

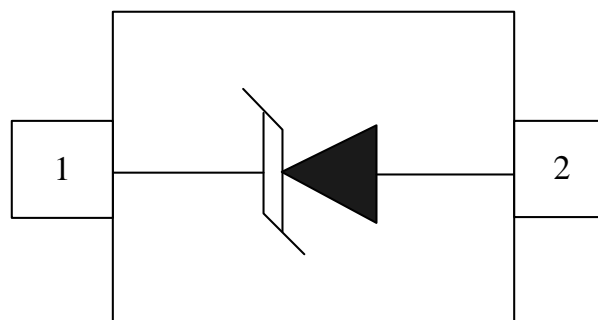
Mechanical Characteristics

- JEDEC SOD-523 package
- Molding compound flammability rating:
UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant

Applications

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 players

Schematic & PIN Configuration

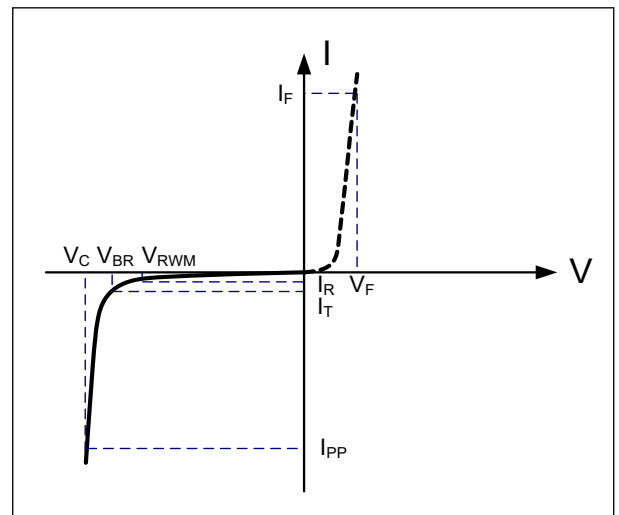


SOD-523 (Top View)

| Absolute Maximum Rating | | | |
|--|-----------|--------------|-------------|
| Rating | Symbol | Value | Units |
| Peak Pulse Power ($t_p = 8/20\mu s$) | P_{PP} | 600 | Watts |
| Peak Forward Voltage ($I_F = 1A, t_p = 8/20\mu s$) | V_{FP} | 1.5 | V |
| 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 |
| I_F | Forward Current |
| V_F | Forward Voltage @ I_F |



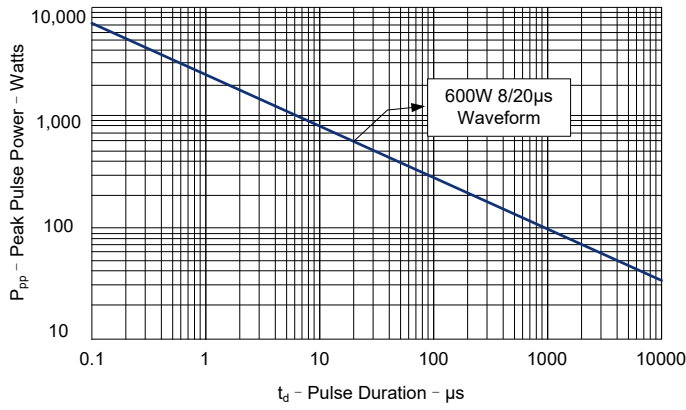
Electrical Characteristics

| DW36D5-E | | | | | | |
|---------------------------|-----------|----------------------------------|---------|---------|---------|-------|
| Parameter | Symbol | Conditions | Minimum | Typical | Maximum | Units |
| Reverse Stand-Off Voltage | V_{RWM} | | | | 36 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T = 1mA$ | 40 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 36V, T = 25^{\circ}C$ | | | 500 | nA |
| Peak Pulse Current | I_{PP} | $t_p = 8/20\mu s$ | | | 6 | A |
| Clamping Voltage | V_C | $I_{PP} = 6A, t_p = 8/20\mu s$ | | 95 | 100 | V |
| Junction Capacitance | C_j | $V_R = 0V, f = 1MHz$ | | 25 | 35 | pF |

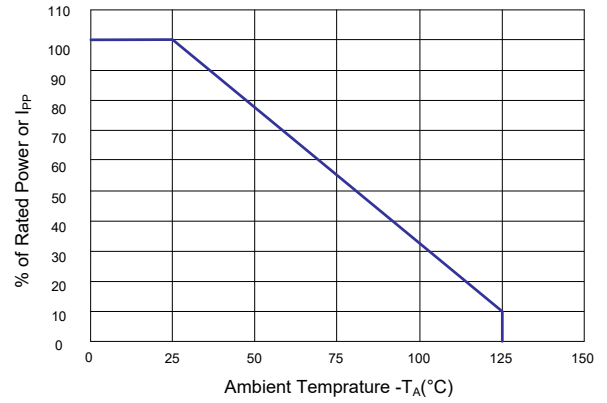


Typical Characteristics

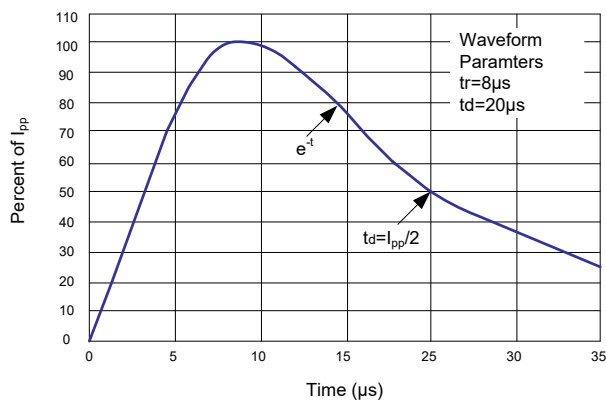
Peak Pulse Power vs. Pulse Time



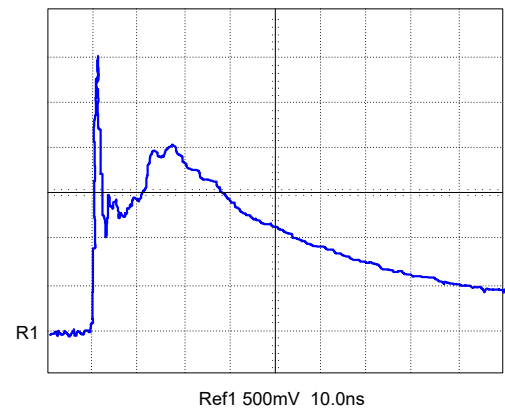
Power Derating Curve



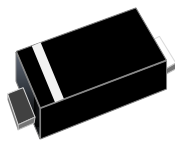
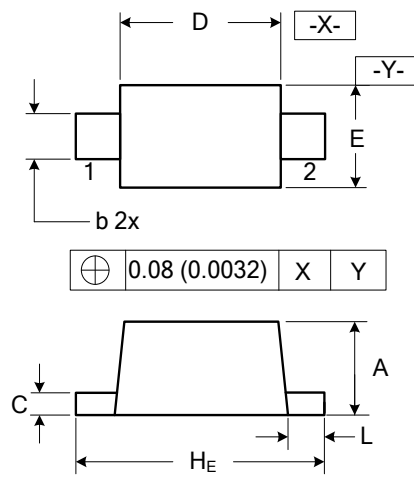
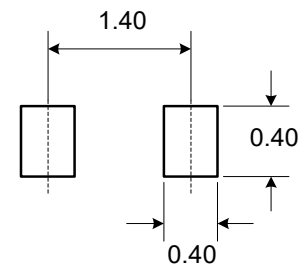
Pulse Waveform




ESD Pulse Waveform (Per IEC 61000-4-2)



Outline Drawing – SOD-523

| PACKAGE OUTLINE | |  SOD-523 | | | |
|---|------------|---|--------|--------|--|
|  | | DIMENSIONS | | | |
| SYMBOL | MILLIMETER | | INCHES | | |
| | MIN | MAX | MIN | MAX | |
| A | 0.50 | 0.70 | 0.020 | 0.028 | |
| b | 0.25 | 0.35 | 0.010 | 0.014 | |
| C | 0.07 | 0.20 | 0.0028 | 0.0079 | |
| D | 1.10 | 1.30 | 0.043 | 0.051 | |
| E | 0.70 | 0.90 | 0.028 | 0.035 | |
| H _E | 1.50 | 1.70 | 0.059 | 0.067 | |
| L | 0.15 | 0.25 | 0.006 | 0.010 | |
|  <p style="text-align: center;">DIMENSIONS: MILLIMETERS</p> | | Notes 1. Controlling Dimensions in Millimeters. 2. Dimensions are exclusive of mold flash and metal burrs. | | | |

Marking Codes

| Part Number | Marking Code |
|-------------|---|
| DW36D5-E |  |

Package Information

Qty: 5k/Reel