



1N4148W

High Speed Switching Diode 400mW

Features

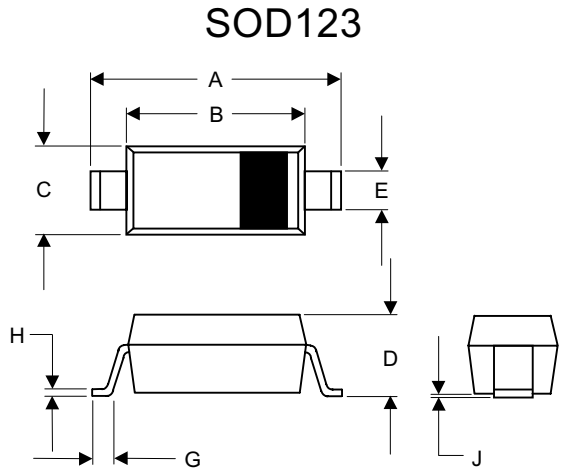
- Halogen free available upon request by adding suffix "-HF"
- Fast switching speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For general purpose switching applications
- High conductance
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)

Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Indicated by Cathode Band
- Weight: 0.01 grams (approx.)
- Marking Code: T4,A2

Absolute maximum Ratings

| Symbol | Parameter | Rating | Unit |
|-----------------|--|-------------|---------------|
| V_{RM} | Peak Repetitive Reverse Voltage | 100 | V |
| V_R | DC Reverse Blocking Voltage | 100 | V |
| $V_{R(RMS)}$ | RMS Reverse Voltage | 71 | V |
| I_{FM} | Peak Forward Current | 300 | mA |
| I_O | Average Rectified Output Current | 150 | mA |
| I_{FSM} | Forward Surge Current @1 μ s | 2 | A |
| | @1s | 1 | A |
| P_D | Power Dissipation | 400 | mW |
| $R_{\theta ja}$ | Thermal Resistance Junction to Ambient | 312.5 | $^{\circ}C/W$ |
| T_J | Operating Junction Temperature | -65 to +150 | $^{\circ}C$ |
| T_{STG} | Storage Temperature | -65 to +150 | $^{\circ}C$ |



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .140 | .152 | 3.55 | 3.85 | |
| B | .100 | .112 | 2.55 | 2.85 | |
| C | .055 | .071 | 1.40 | 1.80 | |
| D | ---- | .053 | ---- | 1.35 | |
| E | .012 | .026 | 0.30 | .66 | |
| G | .006 | ---- | 0.15 | ---- | |
| H | ---- | .01 | ---- | .25 | |
| J | ---- | .006 | ---- | .15 | |

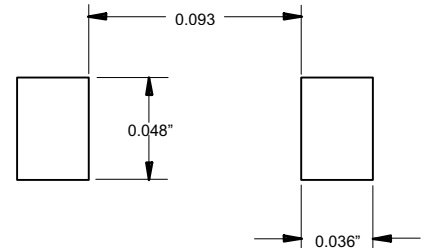
Electrical Characteristics @ 25°C Unless Otherwise Specified

| Symbol | Parameter | Min | Max | Units |
|--------|-----------|-----|-----|-------|
|--------|-----------|-----|-----|-------|

OFF CHARACTERISTICS

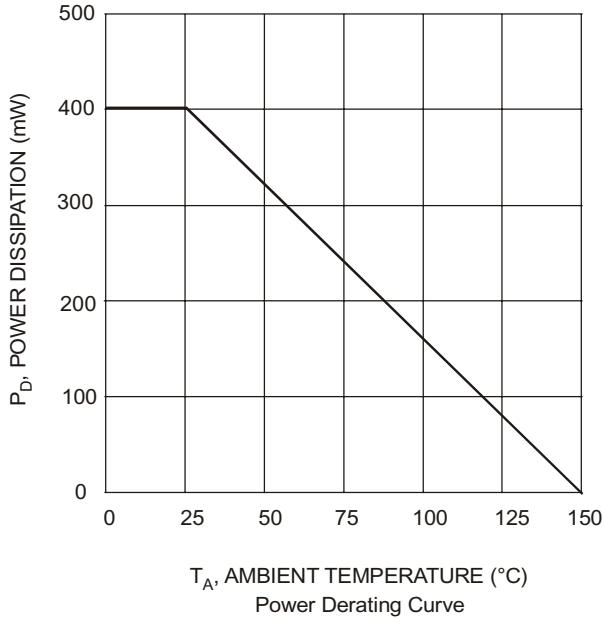
| | | | | |
|----------|--|-----|-------|--------------|
| V_F | Forward Voltage Drop ($I_F=1mA_{dc}$) | --- | 0.715 | Vdc |
| | ($I_F=10mA_{dc}$) | --- | 0.855 | |
| | ($I_F=50mA_{dc}$) | --- | 1.00 | |
| | ($I_F=150mA_{dc}$) | --- | 1.25 | |
| I_R | Reverse Current ($V_R=75V_{dc}, T=25^{\circ}C$) | --- | 1.0 | μA_{dc} |
| | ($V_R=20V_{dc}, T=25^{\circ}C$) | --- | 0.025 | |
| | ($V_R=75V_{dc}, T=150^{\circ}C$) | --- | 50 | |
| C_T | Total Capacitance ($V_R=0V_{dc}, f=1.0MHz$) | --- | 2.0 | pF |
| T_{rr} | Reverse Recovery Time ($I_{rr}=0.1I_R, I_F=I_R, R_L=100\Omega$) | --- | 4.0 | ns |

SUGGESTED SOLDER PAD LAYOUT

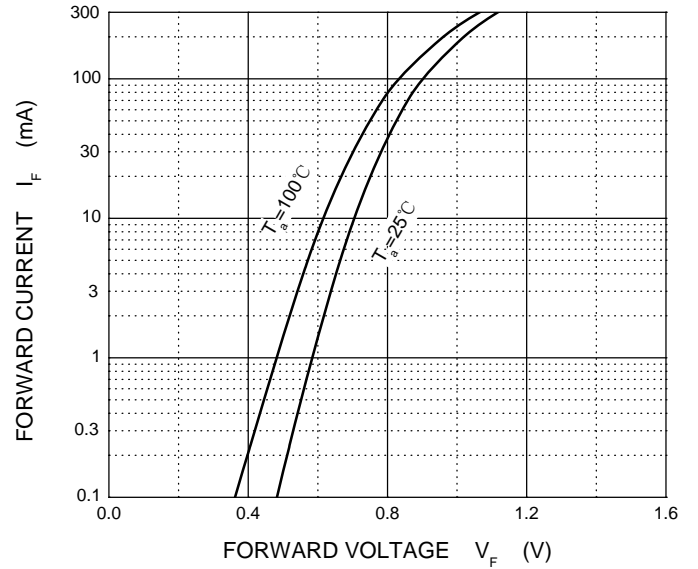


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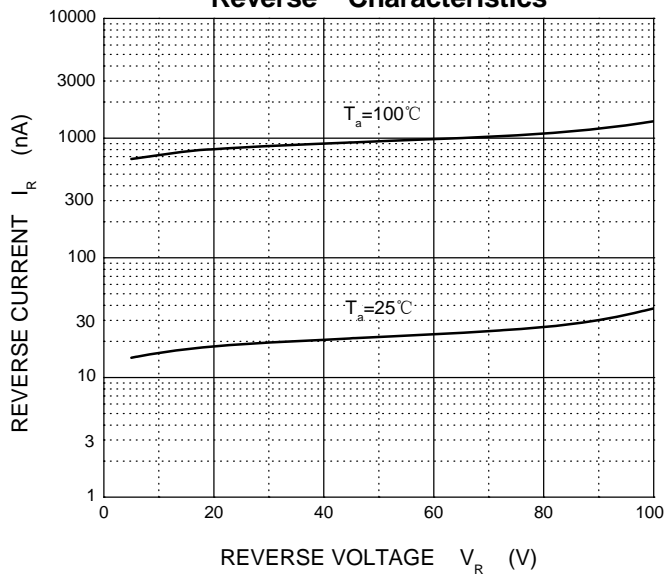
Power Derating Curve



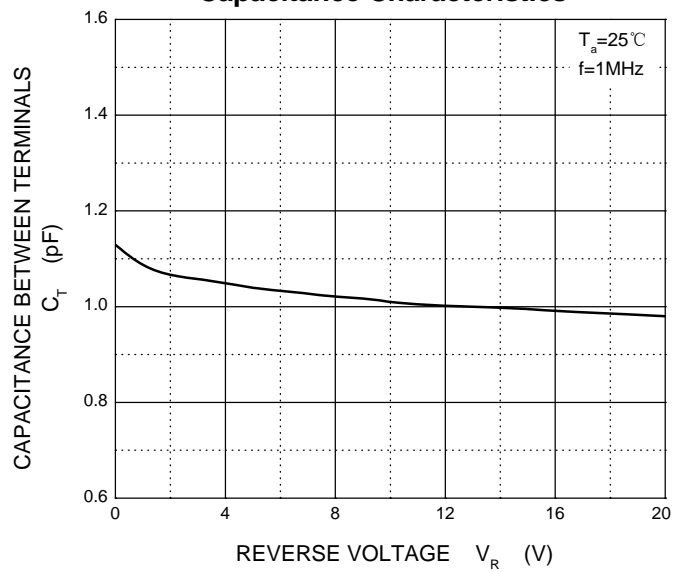
Forward Characteristics



Reverse Characteristics



Capacitance Characteristics





Micro Commercial Components

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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