



Micro Commercial Components

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1N4148X

**200mW
Switching Diodes**

Features

- Halogen free available upon request by adding suffix "-HF"
- Fast Switching Speed
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)

Mechanical Data

- Marking Code: T4
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

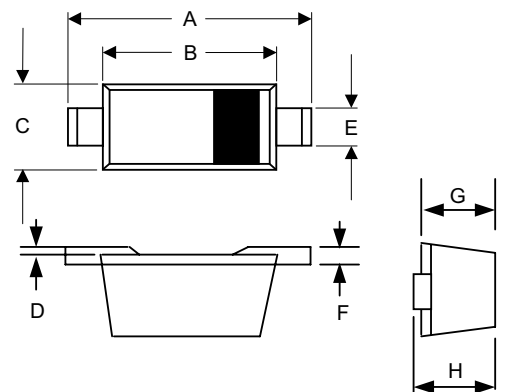
Maximum Ratings

| Symbol | Parameter | Rating | Unit |
|-----------------|--|-------------|---------------|
| V_{RM} | Non-Repetitive Peak Reverse Voltage | 100 | V |
| V_{RRM} | Peak Repetitive Reverse Voltage | 75 | V |
| V_{RWM} | Working Peak Reverse Voltage | | |
| V_R | DC Blocking Voltage | | |
| $V_{R(RMS)}$ | RMS Reverse Voltage | 53 | V |
| I_{FM} | Forward Continuous Current | 300 | mA |
| I_o | Average Rectified Output Current | 150 | mA |
| I_{FSM} | Peak Forward Surge Current @1.0 μ s | 2.0 | A |
| | | @1.0s | |
| $R_{\theta JA}$ | Thermal Resistance Junction to Ambient | 625 | $^{\circ}C/W$ |
| P_D | Power dissipation | 200 | mW |
| T_J, T_{STG} | Operating and Storage Junction Temperature | -65 to +150 | $^{\circ}C$ |

Electrical Characteristics @ 25 $^{\circ}C$ Unless Otherwise Specified

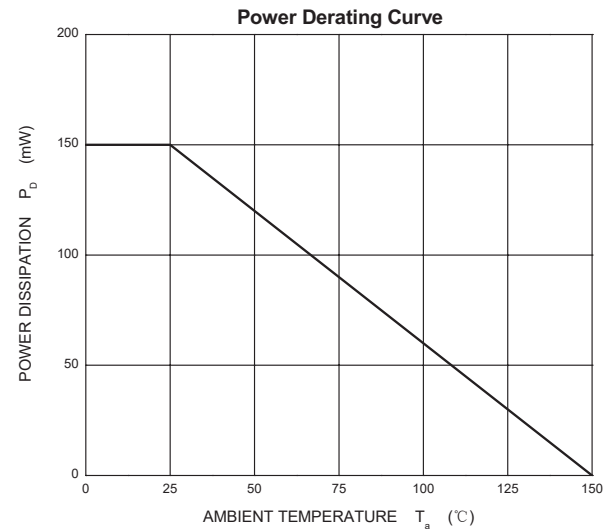
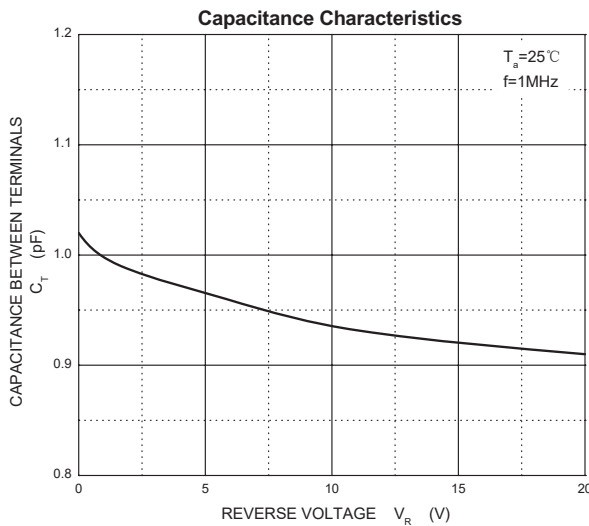
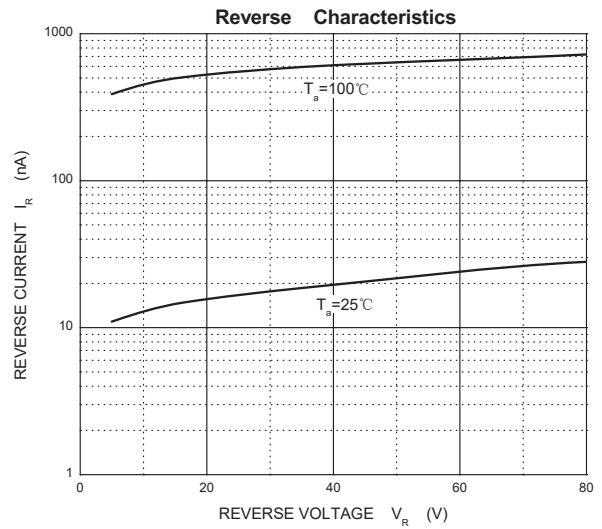
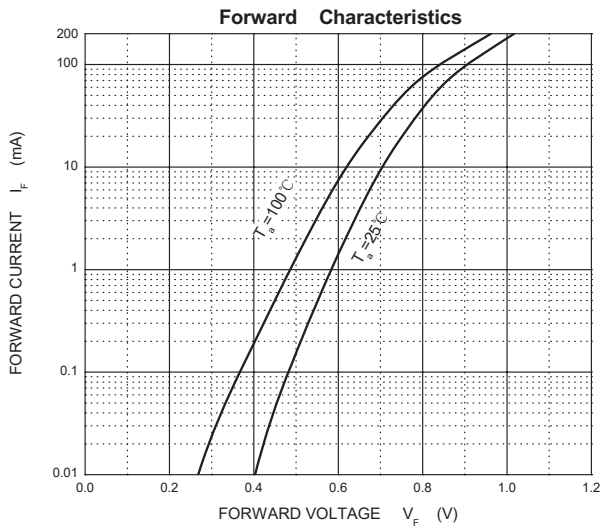
| Symbol | Parameter | Min | Max | Test Conditions |
|------------|---------------------------------|-----|-------------|---|
| $V_{(BR)}$ | Reverse Breakdown Voltage | 75V | --- | $I_R=10 \mu A$ |
| I_R | Reverse Voltage Leakage Current | --- | 1.0 μA | $V_R=75V$ |
| | | --- | 25nA | $V_R=20V$ |
| V_F | Forward Voltage | --- | 0.715V | $I_F=1mA$ |
| | | --- | 0.855V | $I_F=10mA$ |
| | | --- | 1.0V | $I_F=100mA$ |
| C_T | Total Capacitance | --- | 1.25V | $I_F=150mA$ |
| | | --- | 2.0pF | $V_R=0V, f=1MHz$ |
| t_{rr} | Reverse Recovery Time | --- | 4.0ns | $I_R=I_F=10mA, R_L=100 \Omega, Rec. to 1.0mA$ |

SOD523

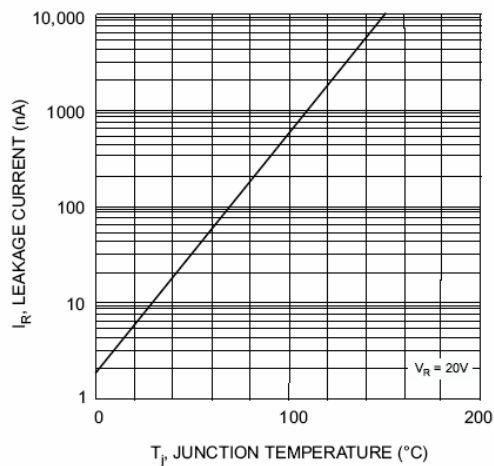


| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| A | .059 | .067 | 1.50 | 1.70 | |
| B | .043 | .051 | 1.10 | 1.30 | |
| C | .030 | .033 | 0.75 | 0.85 | |
| D | .001 | .003 | 0.01 | 0.07 | |
| E | .010 | .014 | 0.25 | 0.35 | |
| F | .003 | .006 | 0.08 | 0.15 | |
| G | .020 | .028 | 0.50 | 0.70 | |
| H | .020 | .031 | 0.51 | 0.77 | |

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Leakage Current vs Junction Temperature





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Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 8Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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