



Micro Commercial Components



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# 1N4448X

## 150mW Switching Diodes

### Features

- Fast Switching Speed
- For General Purpose Switching Applications
- Surface Mount Package Ideally Suited for Automatic Insertion
- Marking Code: T5
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

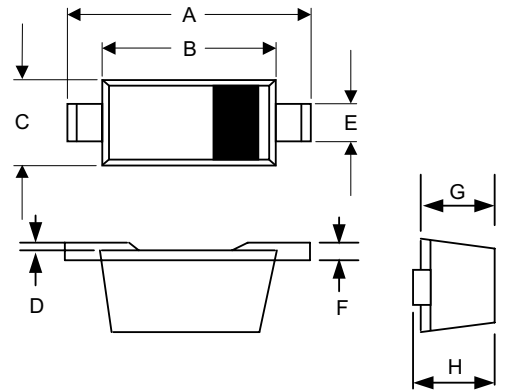
### Maximum Ratings

| Symbol          | Rating                                     | 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                        |             |               |
| $I_{FM}$        | Forward Continuous Current                 | 500         | mA            |
| $I_o$           | Average Rectified Output Current           | 250         | mA            |
| $I_{FSM}$       | Peak Forward Surge Current @ 1.0 $\mu$ s   | 4.0         | A             |
|                 |  | @ 1.0s      |               |
| $R_{\theta JA}$ | Thermal Resistance Junction to Ambient     | 625         | $^{\circ}C/W$ |
| $P_D$           | Power dissipation                          | 150         | mW            |
| $T_J, T_{STG}$  | Operating and Storage Junction Temperature | -65 to +150 | $^{\circ}C$   |

### Electrical Characteristics @ 25°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 | ---   | 2.5 $\mu A$<br>25nA | $V_R=75V$<br>$V_R=20V$                        |
| $V_F$      | Forward Voltage                 | 0.62V | 0.72V               | $I_F=5mA$                                     |
|            |                                 | ---   | 0.855V              | $I_F=10mA$                                    |
|            |                                 | ---   | 1.0V                | $I_F=100mA$                                   |
|            |                                 | ---   | 1.25V               | $I_F=150mA$                                   |
| $C_T$      | Total Capacitance               | ---   | 4.0pF               | $V_R=0V, f=1MHz$                              |
| $t_{rr}$   | Reverse Recovery Time           | ---   | 4.0ns               | $I_R=I_F=10mA, R_L=100 \Omega, Rec. to 1.0mA$ |

### SOD523



| DIM | INCHES |      | MM   |      | NOTE |
|-----|--------|------|------|------|------|
|     | MIN    | MAX  | MIN  | MAX  |      |
| 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 |      |

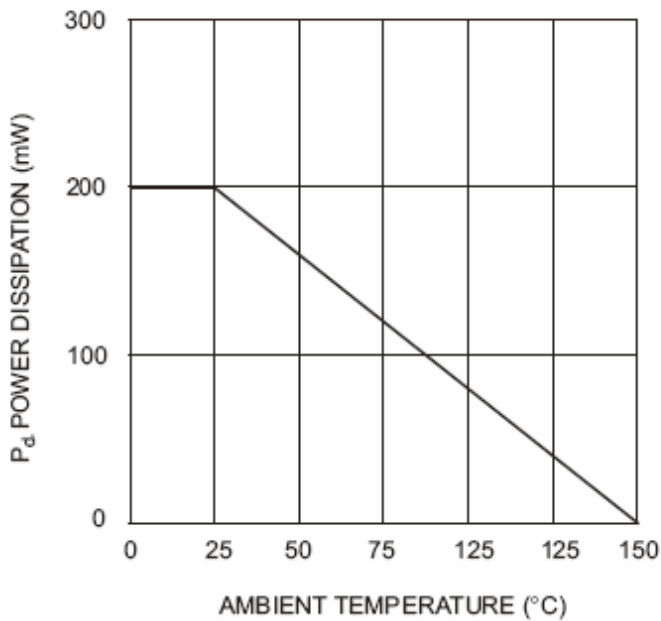


Fig. 1 Forward Current Derating Curve

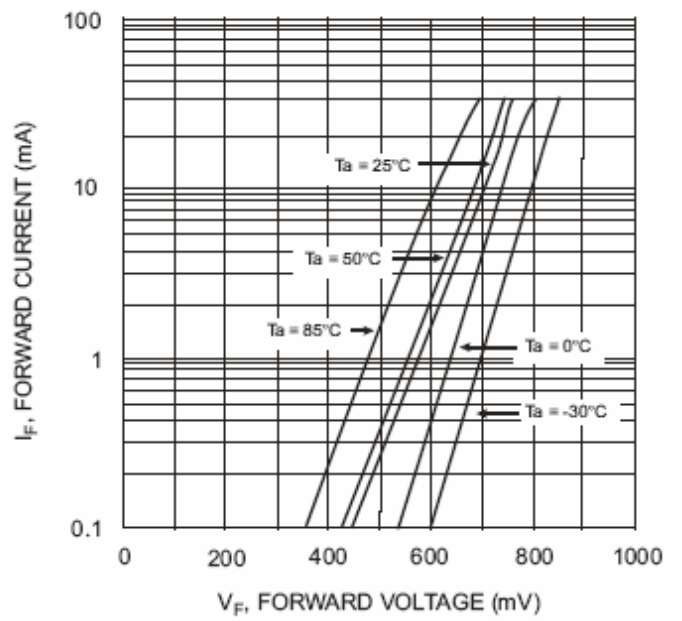


Fig. 2 Typical Forward Characteristics

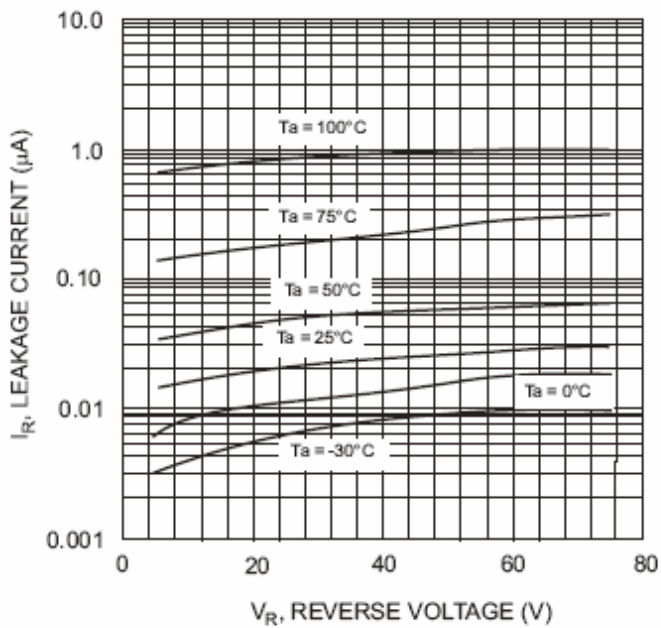


Fig. 3 Typical Reverse Characteristics

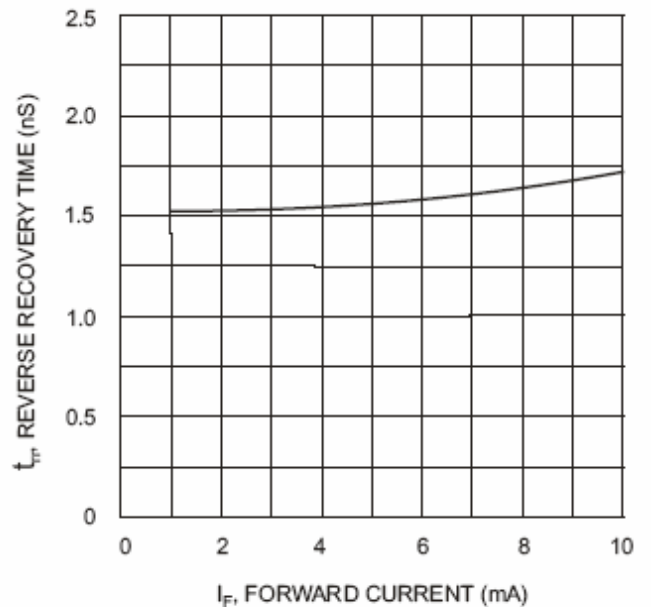
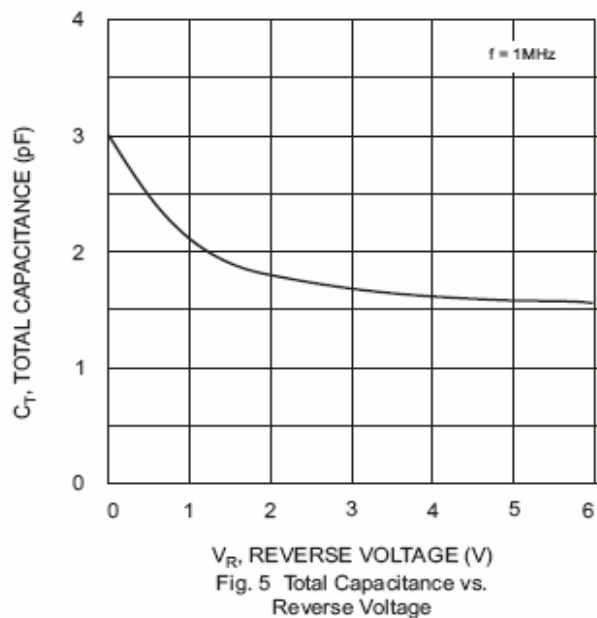


Fig. 4 Reverse Recovery Time vs. Forward Current

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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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