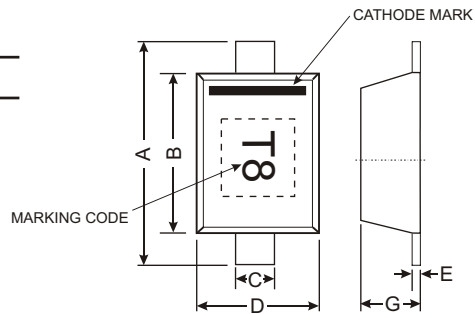


### Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

### Mechanical Data

- Case: SOD-523, Molded Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Finish - Matte Tin (Note 1)  
Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking Code: T8
- Weight: 0.002 grams (approx.)



SOD-523		
Dim	Min	Max
A	1.50	1.70
B	1.10	1.30
C	0.25	0.35
D	0.70	0.90
E	0.10	0.20
G	0.50	0.70
All Dimensions in mm		

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	80	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	57	V
Forward Continuous Current	I <sub>FM</sub>	250	mA
Average Rectified Output Current	I <sub>O</sub>	125	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I <sub>FSM</sub>	2.0 1.0	A
Power Dissipation (Note 2)	P <sub>d</sub>	150	mW
Thermal Resistance Junction to Ambient (Note 2)	R <sub>θJA</sub>	833	°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150	°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 3)	V <sub>(BR)R</sub>	80	—	V	I <sub>R</sub> = 100μA
Forward Voltage	V <sub>F</sub>	0.62	0.72 0.855 1.0 1.25	V	I <sub>F</sub> = 5.0mA I <sub>F</sub> = 10mA I <sub>F</sub> = 100mA I <sub>F</sub> = 150mA
Peak Reverse Current (Note 3)	I <sub>R</sub>	—	100 50 30 25	nA μA μA nA	V <sub>R</sub> = 80V V <sub>R</sub> = 75V, T <sub>j</sub> = 150°C V <sub>R</sub> = 25V, T <sub>j</sub> = 150°C V <sub>R</sub> = 20V
Total Capacitance	C <sub>T</sub>	—	3.0	pF	V <sub>R</sub> = 0.5V, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	4.0	ns	I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω

### Ordering Information (Note 4)

Device	Packaging	Shipping
1N4448HWT-7	SOD-523	3000/Tape & Reel

- Note:
1. If lead-bearing terminal plating is required, please contact your Diodes Inc. sales representative for availability and minimum order details.
  2. Part mounted on FR-4 board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
  3. Short duration pulse test used so as to minimize self-heating effect.
  4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

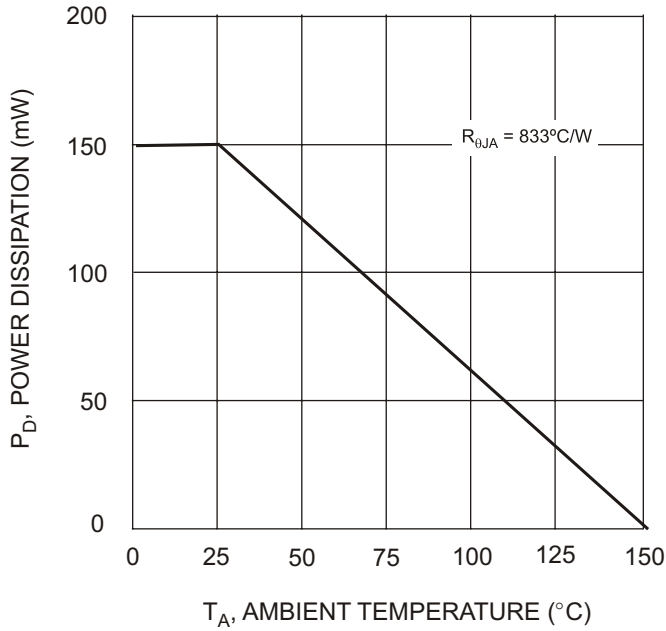


Fig. 1 Derating Curve

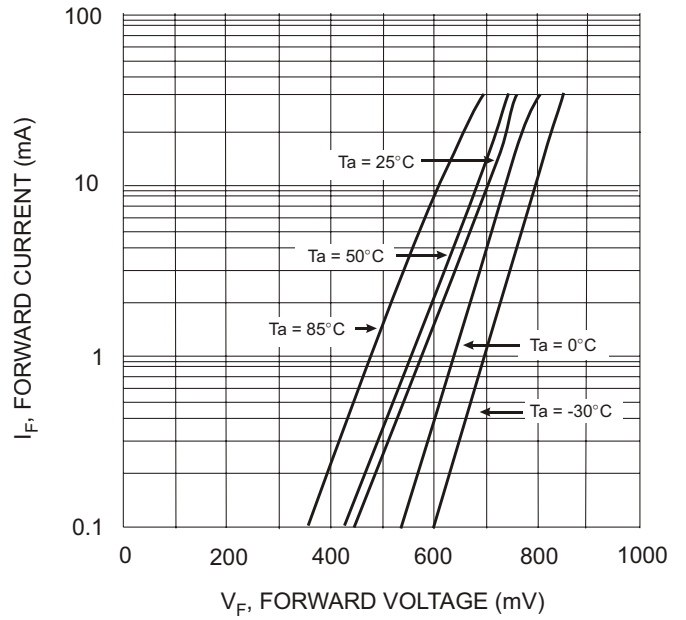


Fig. 2 Typical Forward Characteristics

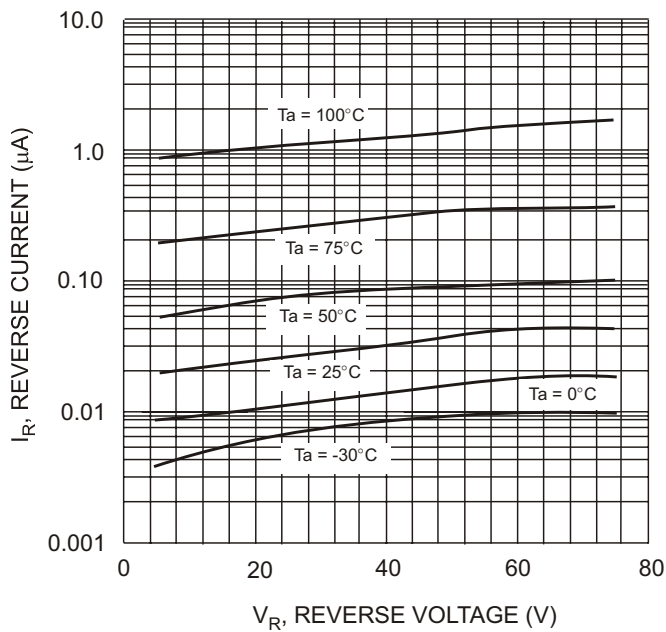


Fig. 3 Typical Reverse Characteristics

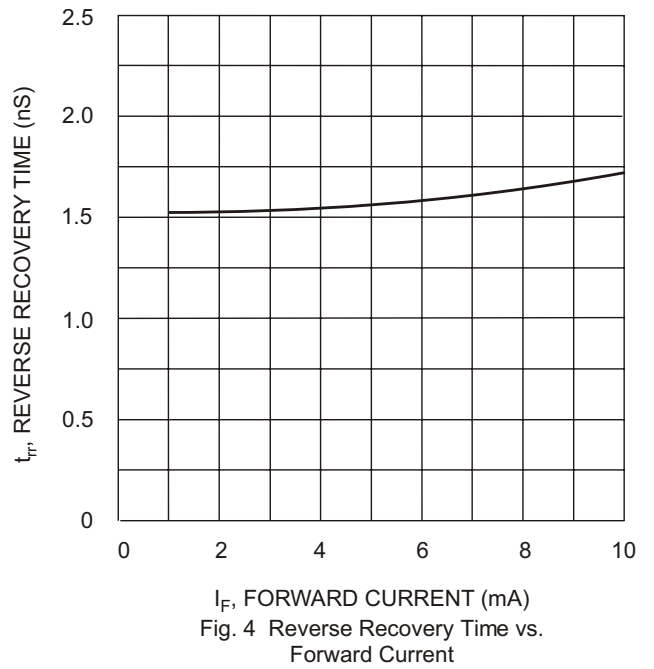


Fig. 4 Reverse Recovery Time vs. Forward Current

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Datasheets for electronics components.