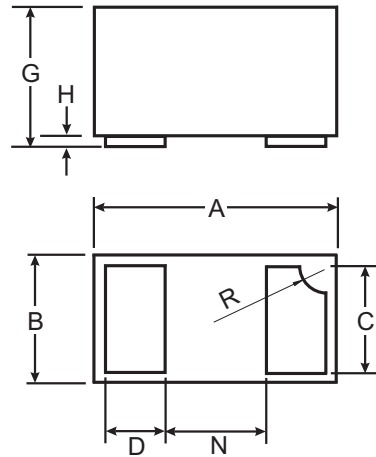


### Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- **Lead Free by Design/RoHS Compliant (Note 1)**
- **"Green" Device (Note 2)**
- **Qualified to AEC-Q101 Standards for High Reliability**

### Mechanical Data

- Case: DFN1006-2
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminal Connections: Cathode Dot
- Terminals: Finish - NiPdAu annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208
- Marking Code: T8, Dot Denotes Cathode Side
- Ordering Information: See Last Page
- Weight: 0.001 grams



DFN1006-2			
Dim	Min	Max	Typ
A	0.95	1.075	1.00
B	0.55	0.675	0.60
C	0.45	0.55	0.50
D	0.20	0.30	0.25
G	0.47	0.53	0.50
H	0	0.05	0.03
N	—	—	0.40
R	0.05	0.15	0.10
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
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

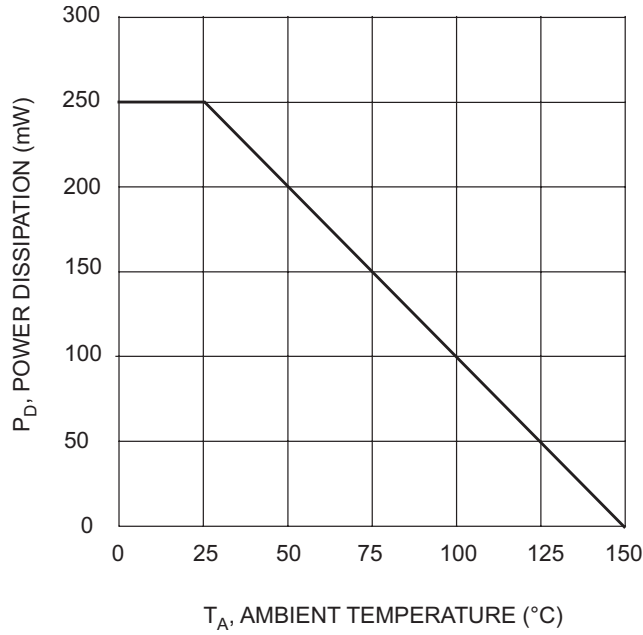
### Thermal Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation	P <sub>d</sub>	250	mW
Thermal Resistance Junction to Ambient	R <sub>θJA</sub>	500	°C/W

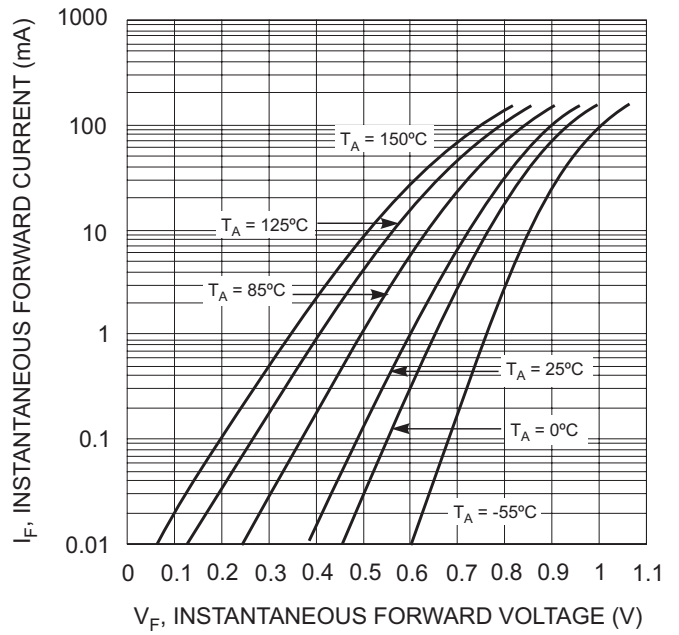
### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

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 (Note 3)	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

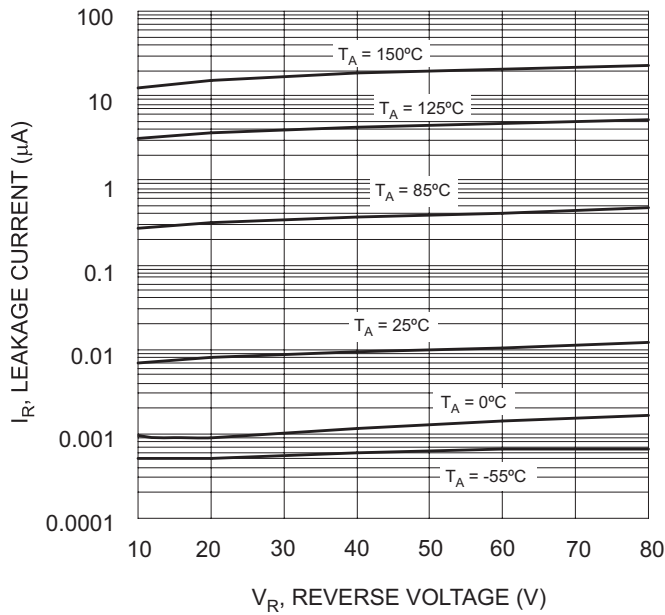
- Note: 1. No purposefully added lead.  
2. Diodes Inc.'s "Green" policy can be found on our website at [http://www.diodes.com/products/lead\\_free/index.php](http://www.diodes.com/products/lead_free/index.php).  
3. Short duration pulse test used so as to minimize self-heating effect.



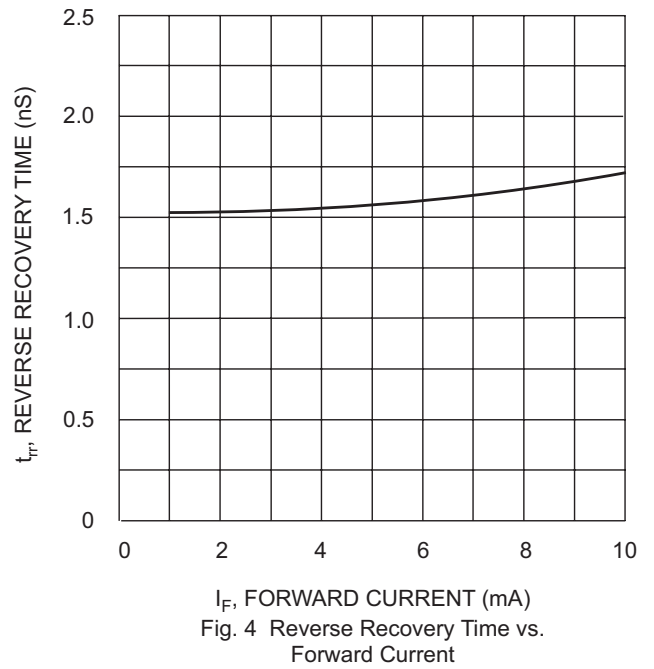
$T_A$ , AMBIENT TEMPERATURE (°C)  
Fig. 1 Power Derating Curve



$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 2 Typical Forward Characteristics



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 3 Typical Reverse Characteristics



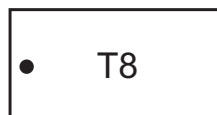
$I_F$ , FORWARD CURRENT (mA)  
Fig. 4 Reverse Recovery Time vs. Forward Current

**Ordering Information** (Note 4)

Device	Packaging	Shipping
1N4448HLP-7	DFN1006-2	3000/Tape & Reel

Note: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Marking Information**



T8 = Product Type Marking Code, Dot Denotes Cathode Side

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