NEW PRODUCT

1N4448HLP

SURFACE MOUNT FAST SWITCHING DIODE

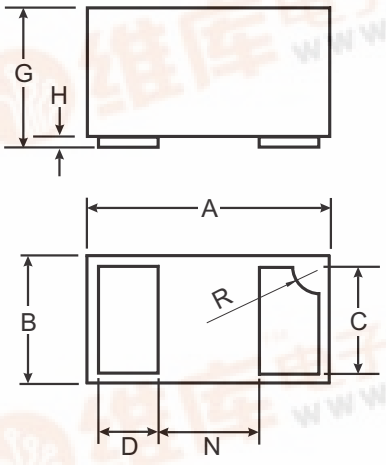
Lead-free Green

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_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	80	V
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current	I_{FM}	250	mA
Average Rectified Output Current	I_O	125	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I_{FSM}	2.0 1.0	A
Operating and Storage Temperature Range	T_j , T_{STG}	-65 to +150	°C

Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation	P_d	250	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	500	°C/W

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Conditions
Reverse Breakdown Voltage (Note 3)	$V_{(BR)R}$	80	—	V	I_R = 100μA
Forward Voltage (Note 3)	V_F	0.62 — — —	0.72 0.855 1.0 1.25	V	I_F = 5.0mA I_F = 10mA I_F = 100mA I_F = 150mA
Peak Reverse Current (Note 3)	I_R	—	100 50 30 25	nA μA μA nA	V_R = 80V V_R = 75V, T_j = 150°C V_R = 25V, T_j = 150°C V_R = 20V
Total Capacitance	C_T	—	3.0	pF	V_R = 0.5V, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	4.0	ns	I_F = I_R = 10mA, I_{rr} = 0.1 x I_R, R_L = 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.
3. Short duration pulse test used so as to minimize self-heating effect.

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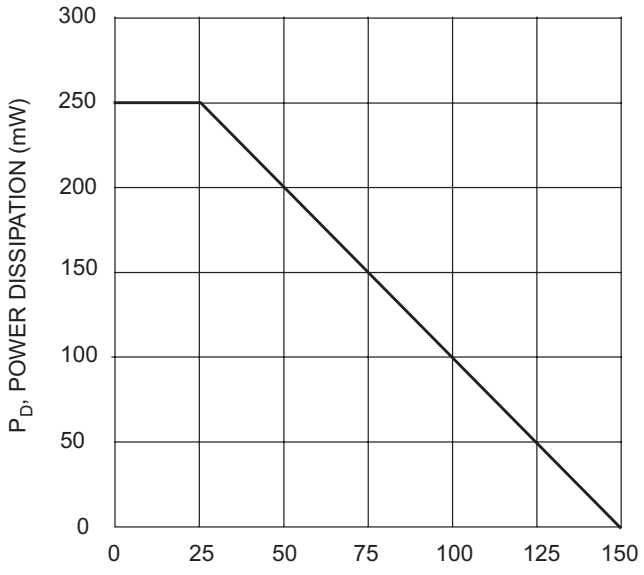


Fig. 1 Power Derating Curve

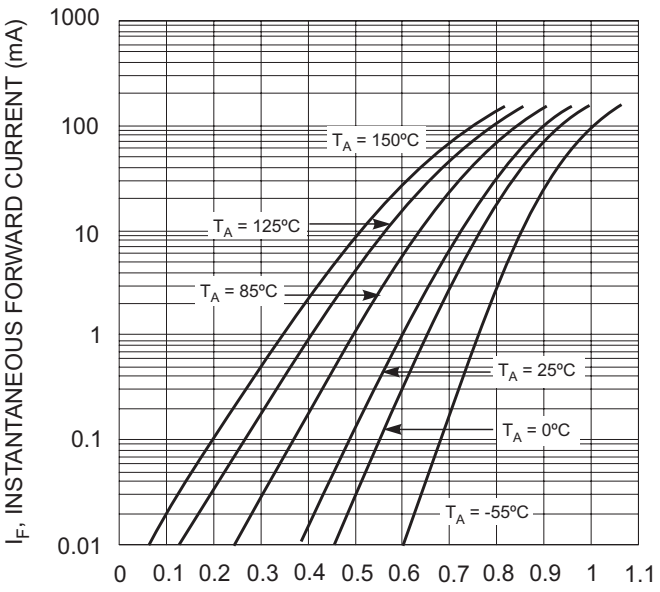


Fig. 2 Typical Forward Characteristics

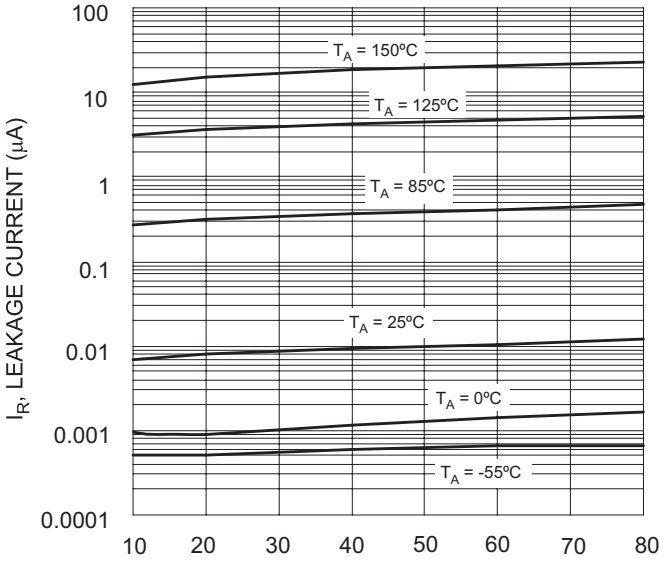


Fig. 3 Typical Reverse Characteristics

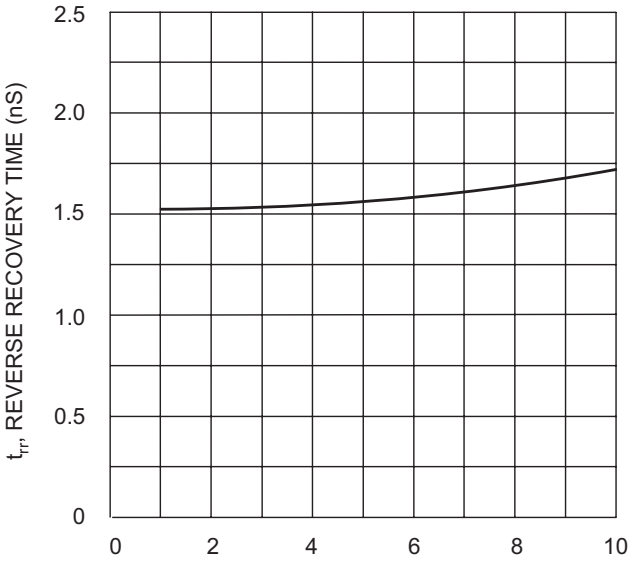


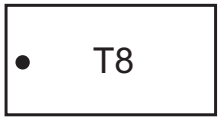
Fig. 4 Reverse Recovery Time vs. Forward Current

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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