

## Features

- Fast Switching Speed
- Ultra-Small Leadless Surface Mount Package (1.0 x 0.6mm)
- Ultra-Low Profile Package (0.4mm)
- Low Forward Voltage (Typ of 0.9V)
- Fast Reverse Recovery (Typ of 2 ns)
- Low Capacitance (Typ of 0.63pF)
- **Lead Free By Design/RoHS Compliant (Note 1)**
- **"Green" Device (Note 2)**

## Mechanical Data

- Case: DFN1006H4-2
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminal Connections: Cathode Bar
- Terminals: Finish - NiPdAu over Copper leadframe. Solderable per MIL-STD-202, Method 208
- Weight: 0.0009 grams (approximate)

DFN1006H4-2



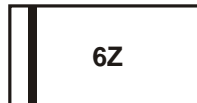
Bottom View

## Ordering Information (Note 3)

Part Number	Case	Packaging
1SS361LPH4-7B	DFN1006H4-2	10,000/Tape & Reel

- Notes:
1. No purposefully added lead.
  2. Diodes Inc.'s "Green" policy can be found on our website at <http://www.diodes.com>.
  3. For packaging details, go to our website at <http://www.diodes.com>.

## Marking Information



6Z = Product Type Marking Code  
Bar Denotes Cathode Side

**Maximum Ratings** @ $T_A = 25^\circ\text{C}$  unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	85	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	80	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current	$I_{FM}$	300	mA
Average Rectified Output Current	$I_O$	100	mA
Non-Repetitive Peak Forward Surge Current @ $t = 1.0\mu\text{s}$	$I_{FSM}$	2.0	A

**Thermal Characteristics**

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 4)	$P_D$	300	mW
Thermal Resistance Junction to Ambient Air (Note 4)	$R_{\theta JA}$	417	$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

**Electrical Characteristics** @ $T_A = 25^\circ\text{C}$  unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 5)	$V_{(BR)R}$	80	—	—	V	$I_R = 100\mu\text{A}$
Forward Voltage	$V_F$	—	0.61	0.715	V	$I_F = 1.0\text{mA}$
			0.73	0.855		$I_F = 10\text{mA}$
			0.90	1.20		$I_F = 100\text{mA}$
Leakage Current (Note 5)	$I_R$	—	—	0.1	$\mu\text{A}$	$V_R = 30\text{V}$
				0.5	$\mu\text{A}$	$V_R = 80\text{V}$
Total Capacitance	$C_T$	—	0.63	3.0	pF	$V_R = 0, f = 1.0\text{MHz}$
Reverse Recovery Time	$t_{rr}$	—	2.0	4.0	ns	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$

- Notes:
- Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com>.
  - Short duration pulse test used to minimize self-heating effect.

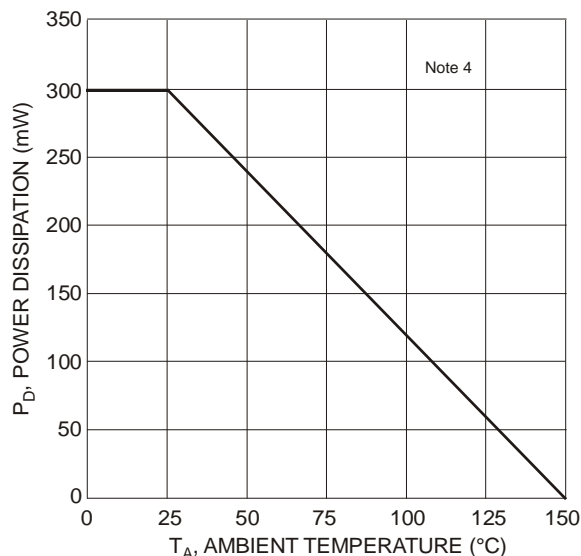


Fig. 1 Power Derating Curve, Total Package

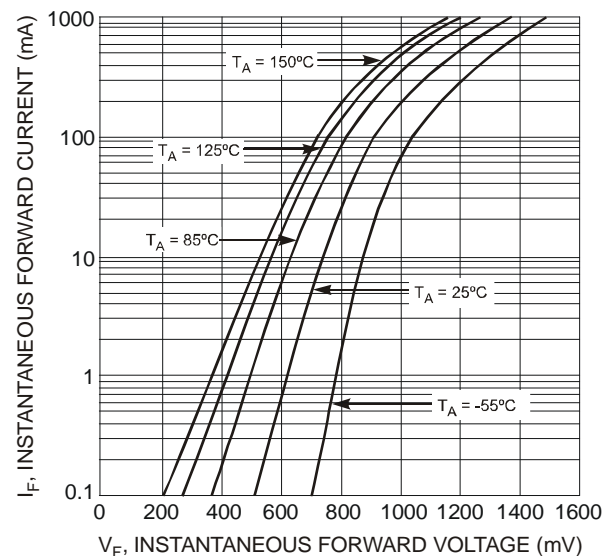


Fig. 2 Typical Forward Characteristics

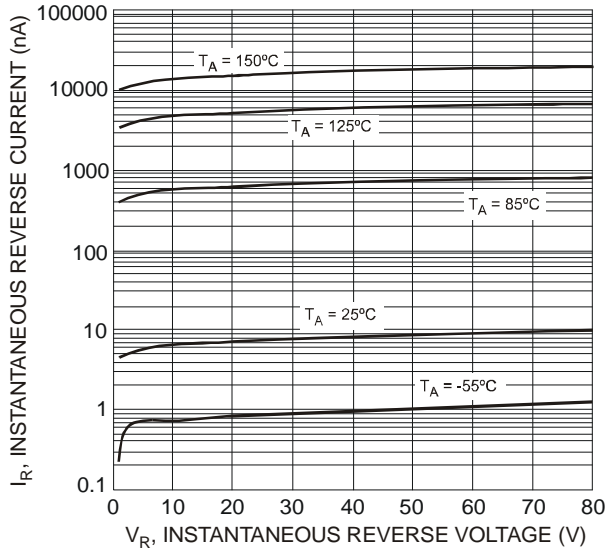


Fig. 3 Typical Reverse Characteristics

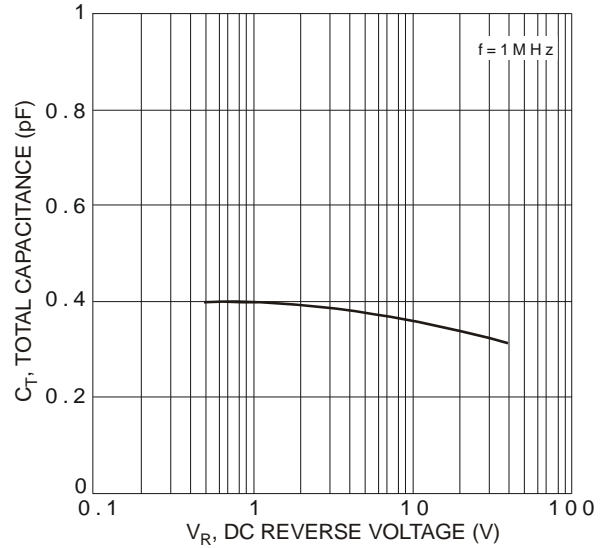
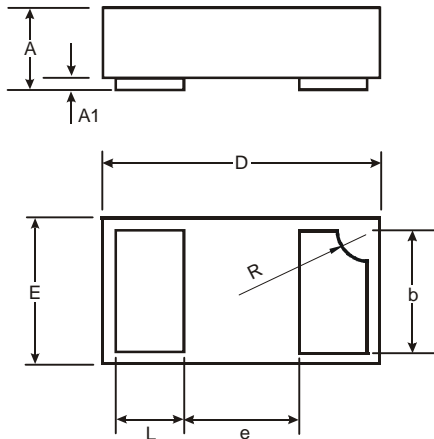


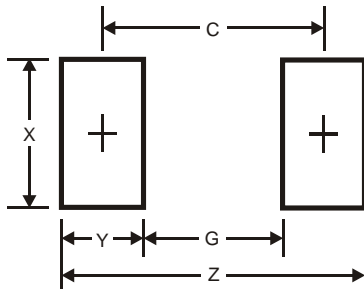
Fig. 4 Total Capacitance vs. Reverse Voltage

**Package Outline Dimensions**



DFN1006H4-2			
Dim	Min	Max	Typ
A	0.34	0.4	0.37
A1	0	0.05	0.03
b	0.45	0.55	0.50
D	0.95	1.075	1.00
E	0.55	0.675	0.60
E	—	—	0.40
L	0.20	0.30	0.25
R	0.05	0.15	0.10
All Dimensions in mm			

**Suggested Pad Layout**



Dimensions	Value (in mm)
Z	1.1
G	0.3
X	0.7
Y	0.4
C	0.7

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