

1N4448HP

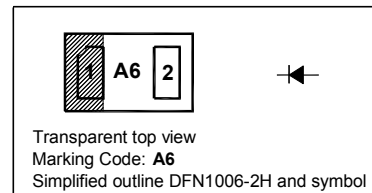
Silicon Epitaxial Planar Switching Diode

Features

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- High conductance

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|---|-----------------|---|--------------------|
| Peak Reverse Voltage | V_{RM} | 100 | V |
| Reverse Voltage | V_R | 80 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 125 | mA |
| Forward Continuous Current | I_{FM} | 250 | mA |
| Non-Repetitive Peak Forward Current | I_{FSM} | 2 1 | A |
| | | $t = 1 \mu\text{s}$ $t = 1 \text{s}$ | |
| Power Dissipation | P_{tot} | 250 | mW |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | 500 | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range | T_j, T_{stg} | - 65 to + 150 | $^\circ\text{C}$ |

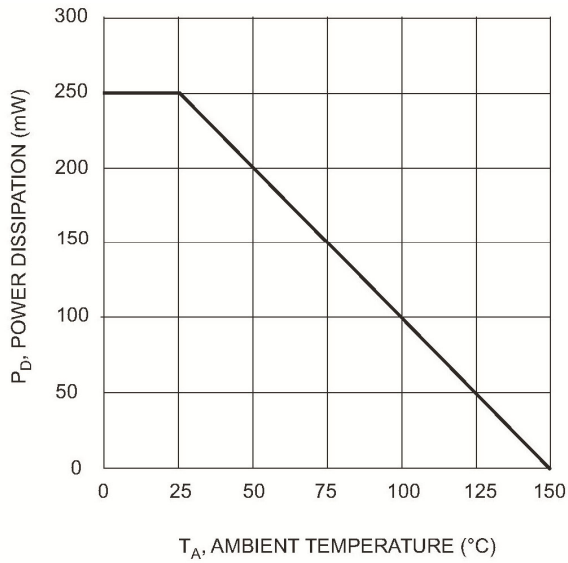
Characteristics at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Min. | Max. | Unit |
|--|-------------|---------------------|----------------------------|--|
| Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$ | $V_{(BR)R}$ | 80 | - | V |
| Forward Voltage at $I_F = 5 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 100 \text{ mA}$ at $I_F = 150 \text{ mA}$ | V_F | 0.62 - - - | 0.72 0.855 1 1.25 | V |
| Peak Reverse Current at $V_R = 20 \text{ V}$ at $V_R = 80 \text{ V}$ at $V_R = 25 \text{ V}, T_j = 150^\circ\text{C}$ at $V_R = 75 \text{ V}, T_j = 150^\circ\text{C}$ | I_R | - - - - | 25 100 30 50 | nA nA μA μA |
| Total Capacitance at $V_R = 0.5 \text{ V}, f = 1 \text{ MHz}$ | C_T | - | 3 | pF |
| Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$ | t_{rr} | - | 4 | ns |

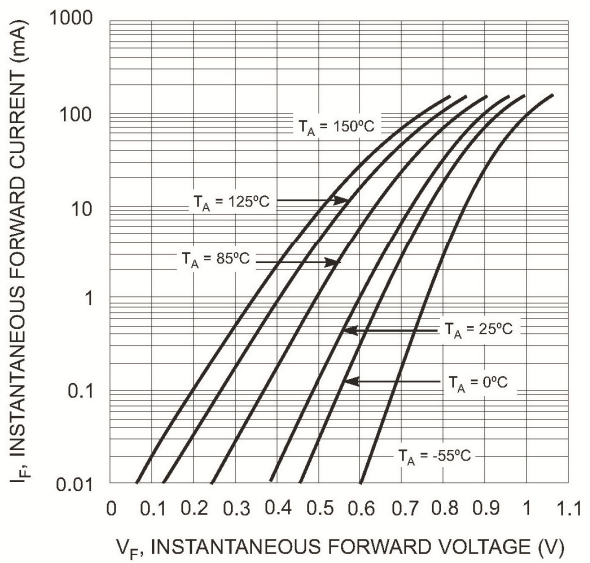
TOP DYNAMIC



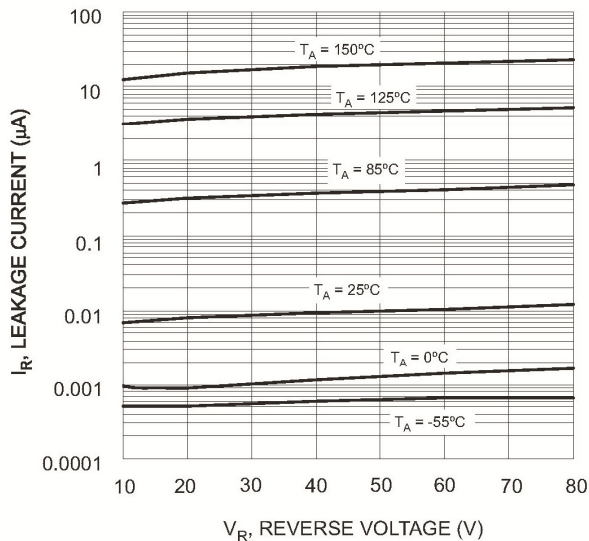
1N4448HP



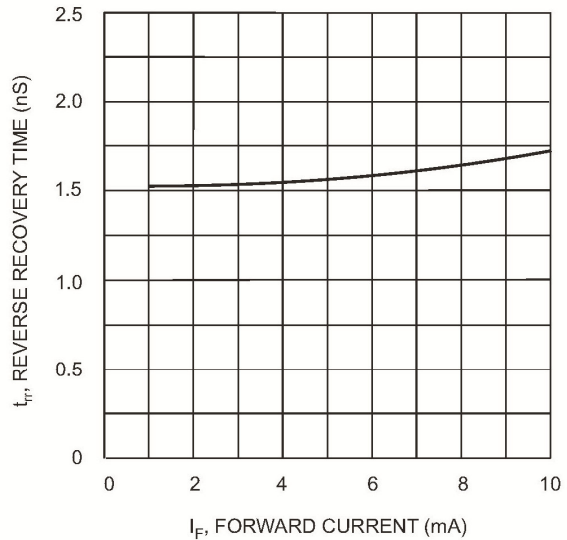
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Power Derating Curve



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

TOP DYNAMIC



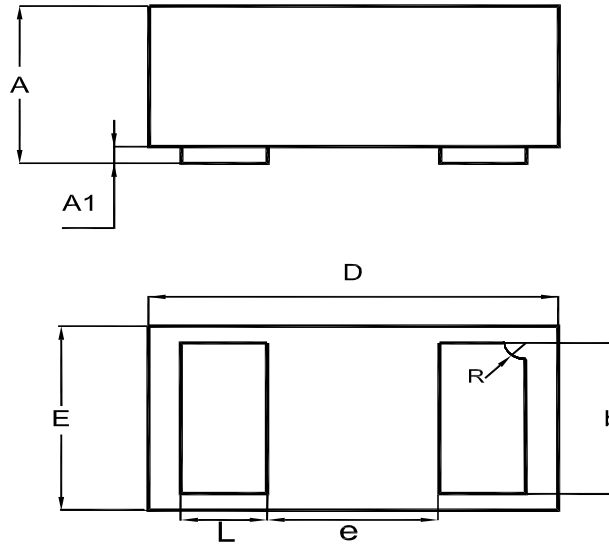
ISO14001 : 2004 Certificate No. 121505007
 ISO 9001 : 2008 Certificate No. 50114012
 OHSAS 18001 : 2007 Certificate No. 05191506008
 IECQ QC 080000 Certificate No. E201800074482

1N4448HP

PACKAGE OUTLINE

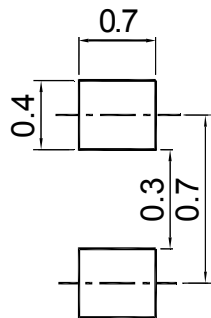
Plastic surface mounted package

DFN1006-2H



| UNIT | A | A1 | b | D | E | e | L | R |
|------|--------------|-----------|--------------|--------------|--------------|-----|------------|--------------|
| mm | 0.51 0.46 | 0.05 0 | 0.55 0.45 | 1.05 0.95 | 0.65 0.55 | 0.4 | 0.3 0.2 | 0.15 0.05 |

Recommended Soldering Footprint



Packing information

| Package | Tape Width (mm) | Pitch | | Reel Size | | Per Reel Packing Quantity |
|------------|-----------------|---------|---------------|-----------|------|---------------------------|
| | | mm | inch | mm | inch | |
| DFN1006-2H | 8 | 4 ± 0.1 | 0.157 ± 0.004 | 178 | 7 | 5,000 |

TOP DYNAMIC



ISO14001 : 2004 Certificate No. 121505007
 ISO 9001 : 2008 Certificate No. 01114012
 OHSAS 18001 : 2007 Certificate No. 05191508008
 IECQ QC 080000 Certificate No. E241800074482

Dated: 13/03/2015 Rev: 01