

## Features

- Fast Switching Speed
- General Purpose Rectification
- Silicon Epitaxial Planar Construction
- **Lead Free Finish, RoHS Compliant (Note 2)**

## Mechanical Data

- Case: DO-35
- Case Material: Glass
- Moisture Sensitivity: Level 1 per J-STD-020D
- Leads: Solderable per MIL-STD-202, Method 208
- Terminals: Finish — Sn96.5Ag3.5. Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Ordering Information: See Page 2
- Weight: 0.13 grams (approximate)

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

Characteristic	Symbol	1N4148	1N4448	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100		V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	75		V
Working Peak Reverse Voltage	V <sub>RWM</sub>			
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53		V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	300	500	mA
Average Rectified Output Current (Note 1)	I <sub>O</sub>	150		mA
Non-Repetitive Peak Forward Surge Current			@ t = 1.0s	1.0
			@ t = 1.0μs	2.0
	I <sub>FSM</sub>			A

## Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P <sub>D</sub>	500	mW
Derate Above 25°C		1.68	mW/°C
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	300	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175	°C

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

Characteristic	Symbol	Min	Max	Unit	Test Condition	
Maximum Forward Voltage	V <sub>FM</sub>	1N4148	—	1.0	V	I <sub>F</sub> = 10mA
		1N4448	0.62	0.72		I <sub>F</sub> = 5.0mA
		1N4448	—	1.0		I <sub>F</sub> = 100mA
Maximum Peak Reverse Current	I <sub>RM</sub>	—	5.0	μA	V <sub>R</sub> = 75V	
			50	μA	V <sub>R</sub> = 70V, T <sub>J</sub> = 150°C	
			30	μA	V <sub>R</sub> = 20V, T <sub>J</sub> = 150°C	
			25	nA	V <sub>R</sub> = 20V	
Total Capacitance	C <sub>T</sub>	—	4.0	pF	V <sub>R</sub> = 0, f = 1.0MHz	
Reverse Recovery Time	t <sub>rr</sub>	—	4.0	ns	I <sub>F</sub> = 10mA to I <sub>R</sub> = 1.0mA V <sub>R</sub> = 6.0V, R <sub>L</sub> = 100Ω	

- Notes:
1. Valid provided that device terminals are kept at ambient temperature.
  2. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and high temperature solder exemptions applied where applicable, see *EU Directive Annex Notes 5 and 7*.

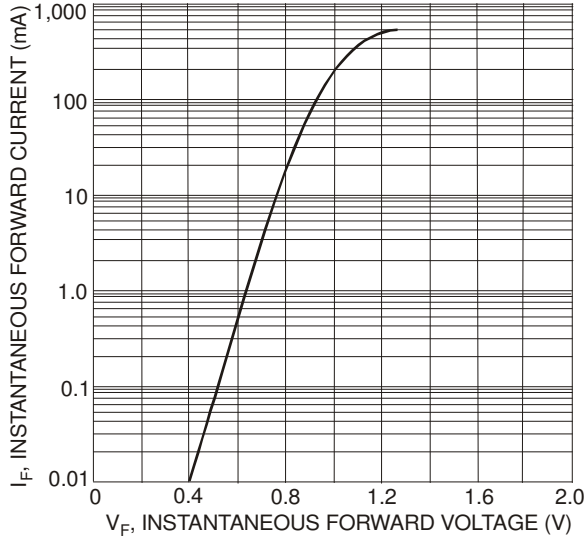


Fig. 1 Typical Forward Characteristics

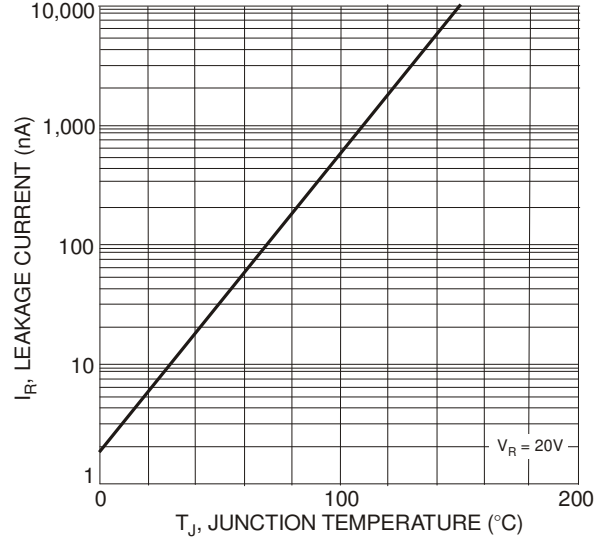


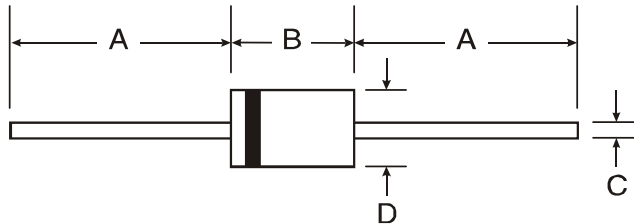
Fig. 2 Leakage Current vs. Junction Temperature

**Ordering Information** (Note 3)

Part Number	Case	Packaging
1N4148-A	DO-35	10K/Ammo Pack
1N4148-T	DO-35	10K/Tape & Reel, 13-inch
1N4448-A	DO-35	10K/Ammo Pack
1N4448-T	DO-35	10K/Tape & Reel, 13-inch

Notes: 3. For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

**Package Outline Dimensions**



DO-35		
Dim	Min	Max
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		

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