

NOT RECOMMENDED FOR NEW DESIGN, USE 1N4148W / 1N4448W

1N4148 / 1N4448



FAST SWITCHING DIODE

Features

- Fast Switching Speed
- General Purpose Rectification
- Silicon Epitaxial Planar Construction
- Lead-Free Finish; RoHS Compliant (Notes 1 & 2)

Mechanical Data

- Case: DO-35
- Case Material: Glass: UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- 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
- Weight: 0.13 grams (approximate)

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:

- 1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.
- 2. See http://www.diodes.com for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
- 3. For packaging details, go to our website at http://www.diodes.com.

Maximum Ratings @TA = 25°C unless otherwise specified

Characteristic		Symbol	1N4148	1N4448	Unit
Non-Repetitive Peak Reverse Voltage		V_{RM}	10	00	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V _{RRM} V _{RWM} V _R	7	5	V
RMS Reverse Voltage		$V_{R(RMS)}$	5	3	V
Forward Continuous Current (Note 4)		I _{FM}	300	500	mA
Average Rectified Output Current (Note 4)		lo	1:	50	mA
Non-Repetitive Peak Forward Surge Current	@ t = 1.0s @ t = 1.0μs	I _{FSM}		.0 .0	А

Thermal Characteristics

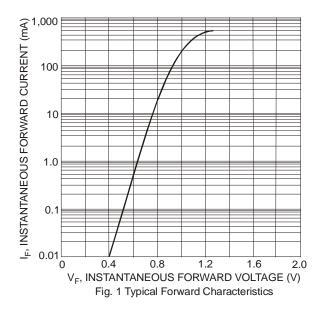
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 4)	6	500	mW
Derate Above 25°C	P _D	1.68	mW/°C
Thermal Resistance, Junction to Ambient Air (Note 4)	$R_{ heta JA}$	300	°C/W
Operating and Storage Temperature Range	T_J , T_{STG}	-65 to +175	°C

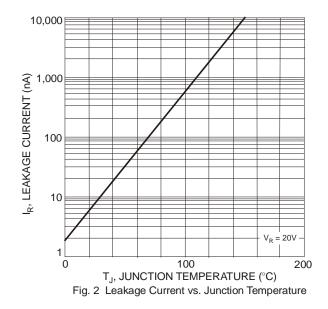
Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
1N4	1148 1448 V _{FM} 1448	0.62	1.0 0.72 1.0	V	I _F = 10mA I _F = 5.0mA I _F = 100mA
Maximum Peak Reverse Current	I _{RM}	_	5.0 50 30 25	μΑ μΑ μΑ nA	V _R = 75V V _R = 70V, T _J = 150°C V _R = 20V, T _J = 150°C V _R = 20V
Total Capacitance	Ст	_	4.0	pF	$V_R = 0$, $f = 1.0MHz$
Reverse Recovery Time	t _{rr}	_	4.0	ns	$I_F = 10$ mA to $I_R = 1.0$ mA $V_R = 6.0$ V, $R_L = 100$ Ω

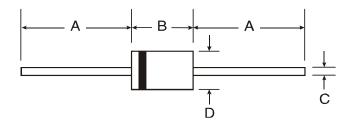
Notes: 4. Valid provided that device terminals are kept at ambient temperature.







Package Outline Dimensions



DO-35			
Dim	Min	Max	
Α	25.40		
В		4.00	
С		0.60	
D	_	2.00	
All Dimensions in mm			



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