

# 1N5391/S - 1N5399/S

1.5A RECTIFIER

#### Features

- Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Low Reverse Leakage Current
- Surge Overload Rating to 50A Peak
- Lead Free Finish, RoHS Compliant (Note 3)

## Mechanical Data

- Case: DO-41, DO-15
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Tin. Solderable per MIL-STD-202, Method 208 (C)
- Polarity: Cathode Band
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: DO-41 0.30 grams (approximate) DO-15 0.40 grams (approximate)



Dim	DO-41 Plastic		DO-15			
Dim	Min	Max	Min	Max		
Α	25.40	_	25.40	_		
В	4.06	5.21	5.50	7.62		
С	0.71	0.864	0.686	0.889		
D	2.00	2.72	2.60	3.60		
All Dimensions in mm						

"S" Suffix Designates DO-41 Package No Suffix Designates DO-15 Package

## Maximum Ratings and Electrical Characteristics @TA = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	1N 5391/S	1N 5392/S	1N 5393/S	1N 5395/S	1N 5397/S	1N 5398/S	1N 5399/S	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>								
Working Peak Reverse Voltage	V <sub>RWM</sub>	50	100	200	400	600	800	1000	V
DC Blocking Voltage	VR								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current		1.5							А
(Note 1) @ T <sub>A</sub> = 70°	c <sup>lo</sup>								
Non-Repetitive Peak Forward Surge Current 8.3ms	1	50						А	
single half sine-wave superimposed on rated load	IFSM	30					A		
Forward Voltage Drop @ I <sub>F</sub> = 1.5	A V <sub>FM</sub>	1.1					V		
Peak Reverse Leakage Current @ $T_A = 25^{\circ}$	C L	5.0						μΑ	
at Rated DC Blocking Voltage $@ T_A = 100^\circ$	C I <sub>RM</sub>	50							
Typical Total Capacitance (Note 2)	CT	20					pF		
Typical Thermal Resistance Junction to Lead	R <sub>θ</sub> JL	25					°C/W		
Typical Thermal Resistance Junction to Ambient (Note 1)	R <sub>0JA</sub>	55					°C/W		
Operating and Storage Temperature Range	T <sub>i.</sub> T <sub>STG</sub>	-65 to +150				°C			

Notes: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.



**DISCONTINUED 08/06/2009** 









## Ordering Information (Note 4)

Device	Packaging	Shipping				
1N5391-B	DO-15	1K/Bulk				
1N5391-T	DO-15	4K/Tape & Reel, 13-inch				
1N5391S-A	DO-41	5K/Ammo Pack				
1N5391S-B	DO-41	1K/Bulk				
1N5391S-T	DO-41	5K/Tape & Reel, 13-inch				
1N5392-B	DO-15	1K/Bulk				
1N5392-T	DO-15	4K/Tape & Reel, 13-inch				
1N5392S-A	DO-41	5K/Ammo Pack				
1N5392S-B	DO-41	1K/Bulk				
1N5392S-T	DO-41	5K/Tape & Reel, 13-inch				
1N5393-B	DO-15	1K/Bulk				
1N5393-T	DO-15	4K/Tape & Reel, 13-inch				
1N5393S-A	DO-41	5K/Ammo Pack				
1N5393S-B	DO-41	1K/Bulk				
1N5393S-T	DO-41	5K/Tape & Reel, 13-inch				
1N5395-B	DO-15	1K/Bulk				
1N5395-T	DO-15	4K/Tape & Reel, 13-inch				
1N5395S-A	DO-41	5K/Ammo Pack				
1N5395S-B	DO-41	1K/Bulk				
1N5395S-T	DO-41	5K/Tape & Reel, 13-inch				
1N5397-B	DO-15	1K/Bulk				
1N5397-T	DO-15	4K/Tape & Reel, 13-inch				
1N5397S-A	DO-41	5K/Ammo Pack				
1N5397S-B	DO-41	1K/Bulk				
1N5397S-T	DO-41	5K/Tape & Reel, 13-inch				
1N5398-B	DO-15	1K/Bulk				
1N5398-T	DO-15	4K/Tape & Reel, 13-inch				
1N5398S-A	DO-41	5K/Ammo Pack				
1N5398S-B	DO-41	1K/Bulk				
1N5398S-T	DO-41	5K/Tape & Reel, 13-inch				
1N5399-B	DO-15	1K/Bulk				
1N5399-T	DO-15	4K/Tape & Reel, 13-inch				
1N5399S-A	DO-41	5K/Ammo Pack				
1N5399S-B	DO-41	1K/Bulk				
1N5399S-T	DO-41	5K/Tape & Reel, 13-inch				

Notes: 4. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.

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