



# 1N5391 THRU 1N5399

## GENERAL PURPOSE PLASTIC RECTIFIER

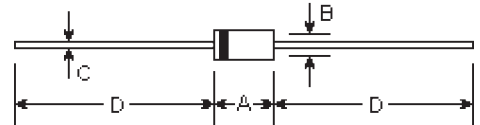
Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.5 Amperes

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High surge current capability
- 1.5 ampere operation at  $T_L=70^\circ\text{C}$  with no thermal runaway
- Low reverse leakage
- Construction utilizes void-free molded plastic technique
- High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3Kg) tension

### DO-15



### Mechanical Data

- **Case:** DO-15 molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.014 ounce, 0.39 gram

DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	0.228	0.299	5.8	7.6	
B	0.102	0.142	2.6	3.6	ϕ
C	0.028	0.034	0.71	0.86	ϕ
D	1.000	-	25.40	-	

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	1N 5391	1N 5392	1N 5393	1N 5394	1N 5395	1N 5396	1N 5397	1N 5398	1N 5399	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	Volts
Maximum average forward rectified current 0.500" (12.7mm) lead length at $T_L=70^\circ\text{C}$	$I_{(AV)}$	1.5									Amps
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) at $T_A=75^\circ\text{C}$	$I_{FSM}$	50.0									Amps
Maximum instantaneous forward voltage at 1.5A $T_A=70^\circ\text{C}$	$V_F$	1.40									Volts
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=150^\circ\text{C}$	$I_R$	5.0 300.0									μA
Typical reverse recovery time (Note 1)	$T_{rr}$	2.0									μS
Typical junction capacitance (Note 2)	$C_J$	15.0									pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	50.0 25.0									°C/W
Maximum DC blocking voltage temperature	$T_A$	+150									°C
Operating junction temperature range	$T_J$	-50 to +170									°C
Storage temperature range	$T_{STG}$	-50 to +175									°C

#### Notes:

(1) Measured with  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

(3) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted

# RATINGS AND CHARACTERISTIC CURVES

