

# 1N5391G THRU 1N5399G

## **GENERAL PURPOSE PLASTIC RECTIFIER**

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.5Amperes

#### **FEATURES**

. The plastic package carries Underwrites Laboratory

Flammability Classification 94V-0

. High current capability

. Low reverse leakage

. Glass passivated junction

. Low forward voltage drop

. High temperature soldering guaranteed:  $350\,^{\circ}\text{C}/10$  seconds,

0.375"(9.5mm)lead length,5lbs.(2.3kg)tension

### **MECHANICAL DATA**

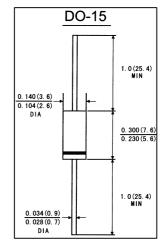
. Case: JEDEC DO-15 molded plastic body

. Terminals: Plated axial lead solderable per MIL-STD-750, method 2026

. Polarity: Color band denotes cathode end

. Mounting Position: Any

. Weight: 0.014 ounce, 0.39 gram



**Dimensions in inches and (millimeters)** 

## **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

 $(Ratings\ at\ 25^\circ\!C\ ambient\ temperature\ unless\ otherwise\ specified, Single\ phase, half\ wave\ 60Hz, resistive\ or\ inductive)$ 

load. For capacitive load, derate by 20%)

		Symbols	1N 5391G	1N 5392G	1N 5393G	1N 5394G	1N 5395G	1N 5396G	1N 5397G	1N 5398G	1N 5399G	Units
Maximum repetitive peak reverse voltage		VRRM	50	100	200	300	400	500	600	800	1000	Volts
Maximum RMS voltage		VRMS	35	70	140	210	280	350	420	560	700	Volts
Maximum DC blocking voltage		VDC	50	100	200	300	400	500	600	800	1000	Volts
Macimum average forward rectified current 0.375"(9.5mm)lead length at Ta= $70^{\circ}$ C (see Fig.1)		I(AV)	1.5									Amps
Peak forward surge current 8.3ms sing-wave superimposed on rated load (JEDEC method)		lfsm	50.0								Amps	
Maximum instantaneous forward voltage at 1.5 A		VF	1.4									Volts
Maximum reverse current at rated DC blocking voltage	TA=25℃ TA=125℃	lr	5.0 50.0							μа		
Typeical thermal resistance(Note 2)		R θ JA R θ JL	50.0 25.0									°C/W
Typical junction Capacitance(Note 1)		Сл	20.0									pF
Maximum DC Blocking Voltage temperature		TA	+150									$^{\circ}$
Operating and storage temperature range		Тл Тsтg	-65 to +175									$^{\circ}$ C

Notes: 1. Measured at 1MHz and applied reverse voltage of 4.0V DC

2.Thermal resistance from juntion to ambient and from junction lead at 0.375"(9.5mm)lead length,

P.C.B. Mounted



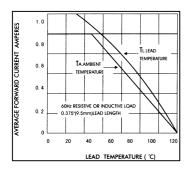
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## GENERAL PURPOSE PLASTIC RECTIFIER

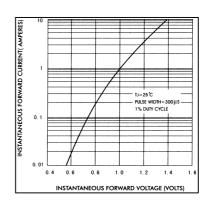
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## RATINGS AND CHARACTERISTIC CURVES 1N5391G THRU 1N5399G

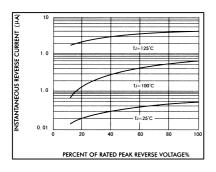
## **FLG.1-FORWARD CURRENT DERATING CURVE**



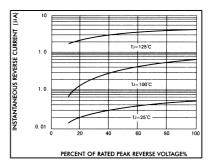
# FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



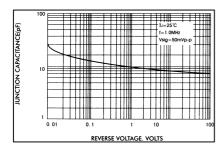
#### FIG.3-TYPICAL REVERSE CHARACTERISTICS



# FIG.4-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



#### FIG.5-TYPICAL JUNCTION CAPACITANCE



## FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

