

1N5391 THRU 1N5399

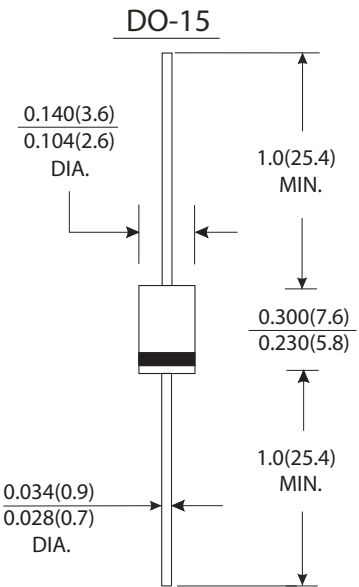
CURRENT 1.5 Amperes
VOLTAGE 50 to 1000 Volts

Features

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

Mechanical Data

- Case : JEDEC DO-15 molded plastic body
- Terminals : Lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.014 ounce, 0.33 gram



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	1N 5391	1N 5392	1N 5393	1N 5394	1N 5395	1N 5396	1N 5397	1N 5398	1N 5399	Units
Maximum recurrent 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 0.375"(9.5mm) lead length $T_A=70^\circ\text{C}$	$I_{(AV)}$	1.5									Amps
Peak forward surge current 8.3ms half sine wave superimposed on rated load (JEDEC method) at $T_A=70^\circ\text{C}$	I_{FSM}	50.0									Amps
Maximum instantaneous forward voltage at 1.5A	V_F	1.4									Volts
Maximum reverse current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	5.0									μA
	$T_A=100^\circ\text{C}$	50.0									
Typical thermal resistance (Note 2)	$R_{\theta JA}$	50.0									$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	25.0									
Typical junction capacitance (Note 1)	C_J	20.0									pF
Maximum DC Blocking Voltage Temperature	T_A	+150.0									$^\circ\text{C}$
Operating and Storage temperature Range	T_J T_{STG}	-65 to +175									$^\circ\text{C}$

Notes:

- (1) Measured at 1MHz and applied reverse voltage of 4.0V DC.
- (2) 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 1N5391 THRU 1N5399

FIG.1-FORWARD CURRENT DERATING CURVE

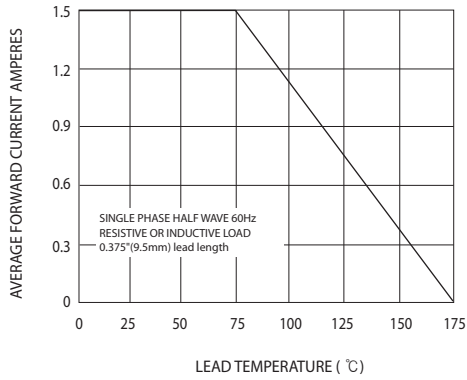


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

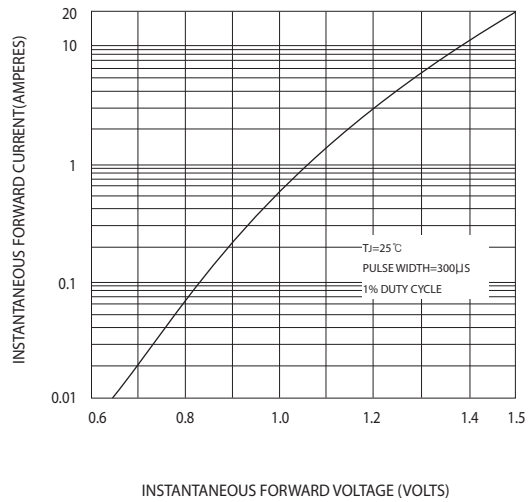


FIG.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

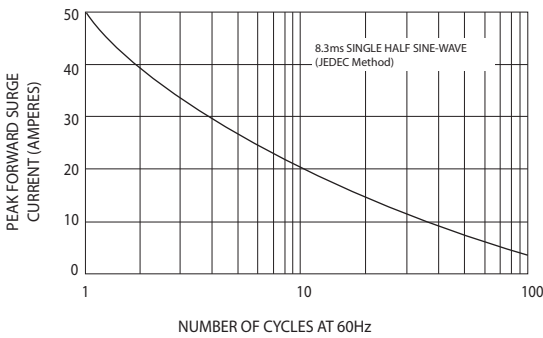


FIG.4-TYPICAL REVERSE CHARACTERISTICS

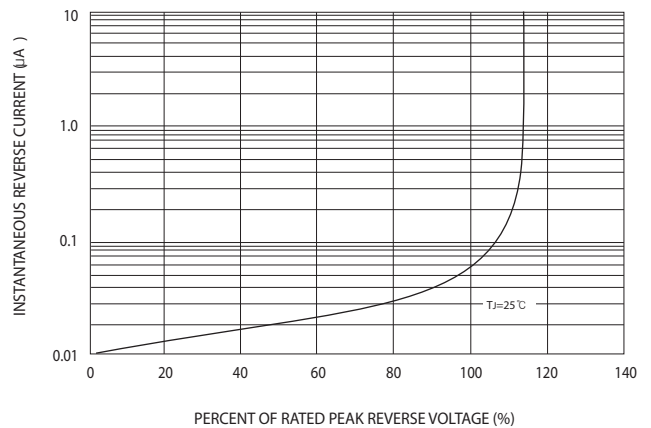


FIG.5-TYPICAL JUNCTION CAPACITANCE

