1N5391 - 1N5399 SILICON RECTIFIER

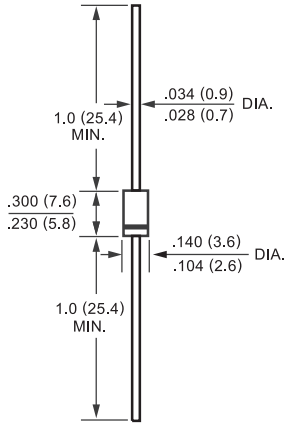
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 1.5 Amperes

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.38 gram

FEATURES

* Low cost
* Low leakage
* Low forward voltage drop
* High current capability



Dimensions in inches and (millimeters)

DO-15

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER		SYMBOL	1N5391	1N5392	1N5393	1N5395	1N5397	1N5398	1N5399	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current .375*(9.5mm) lead length at T_L = 70℃		I_O	1.5							Amps
Peak Forward Surge Current: 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)		I_{FSM}	50							Amps
Maximum Instantaneous Forward Voltage at 1.5A DC		V_F	1.4							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25℃	I_R	5.0							uAmps
	@T_A = 100℃		500							
Maximum Full Load Reverse Current Average. Full Cycle .375*(9.5mm) lead length at T_L = 75℃			30							uAmps
Typical Junction Capacitance (Note)		C_J	20							pF
Typical Thermal Resistance		$R\theta_{JL}$	50							℃/W
Operating and Storage Temperature Range		T_J,T_{STG}	-65 to +175							℃

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

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RATING AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

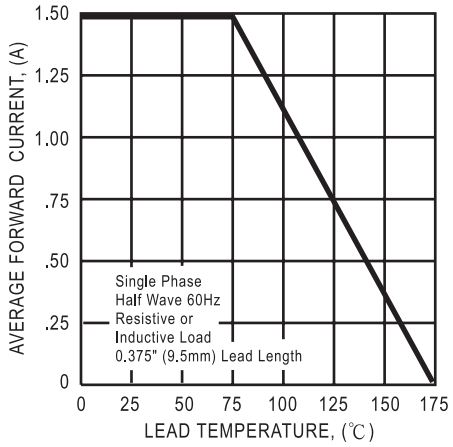


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

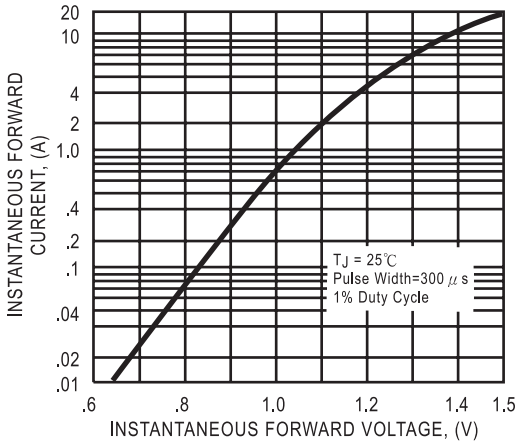


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

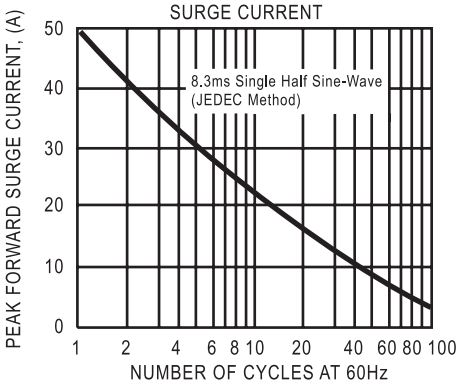


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

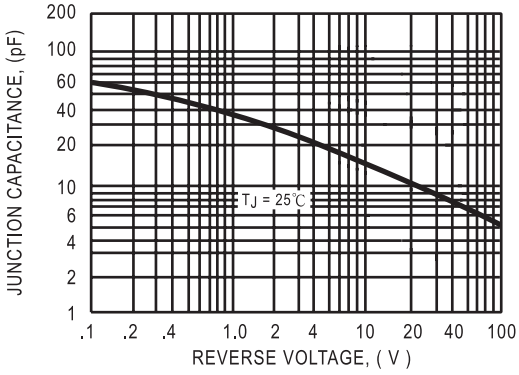
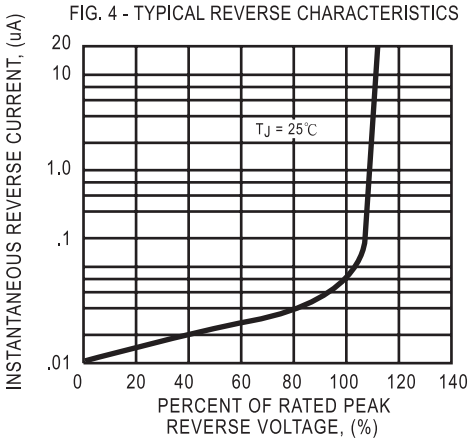


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS



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