GENERAL PURPOSE SILICON RECTIFIER

1N5391
THRU
1N5399

VOLTAGE RANGE 50 to 1000 Volts
CURRENT 1.5 Amperes

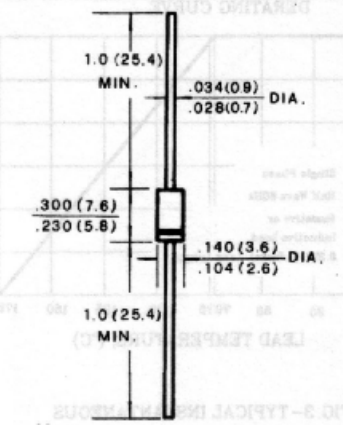
FEATURES

- Low cost construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260℃/10 seconds/. 375″ (9.5mm) lead length at 5 lbs(2,3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V−0 rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL−STD−202E method 208C
- Mounting position: Any
- Weight: 0.014 ounce, 0.39 gram

DO−15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	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 0.375″(9.5mm) lead length at T_L=70℃	$I_{(AV)}$	1.5									Amps
Peak Forward Surge Current 8.3ms single half sine−wave superimposed on rated load (JEDEC Method)	I_{FSM}	50									Amps
Maximum Instantaneous Forward Voltage at 1.5A	V_F	1.1									Volts
Maximum DC Reverse Current at rated DC blocking voltage T_A=25℃	I_R	5.0									μAmps
Maximum DC Reverse Current at rated DC blocking voltage T_A=100℃	I_R	50									μAmps
Maximum Full Load Reverse Current, full cycle average 0.375″ (9.5mm) lead length at T_L=75℃	$I_{R(AV)}$	30									μAmps
Typical Junction Capacitance (NOTE 1)	C_J	20									pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	50									℃/W
Operating and Storage Temperature Range	T_J, T_{STG}	−65 to +175									℃

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance from Junction to Ambient at. 375″(9.5mm) lead length, P.C. board mounted with 0.2″ ×0.2″ (5.0×5.0mm) copper pads.

RATINGS AND CHARACTERISTIC CURVES IN5391 THRU IN5399

FIG.1–TYPICAL FORWARD CURRENT DERATING CURVE

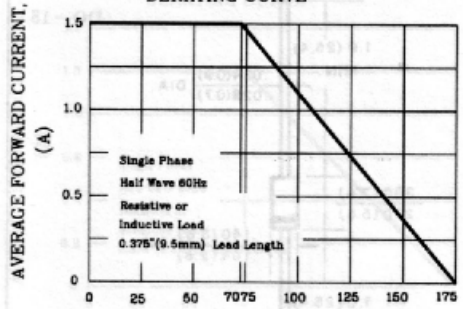


FIG.2–MAXIMUM NON–REPETITIVE PEAK FORWARD SURGE CURRENT

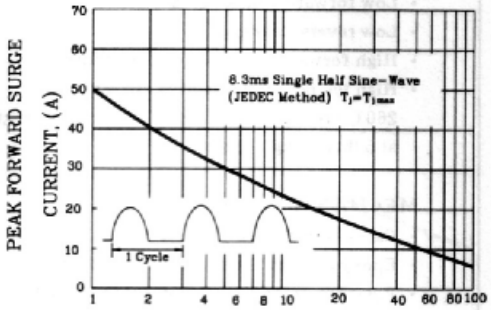


FIG.3–TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

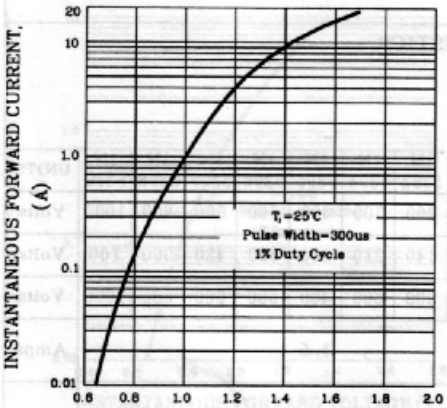


FIG.4–TYPICAL REVERSE CHARACTERISTICS

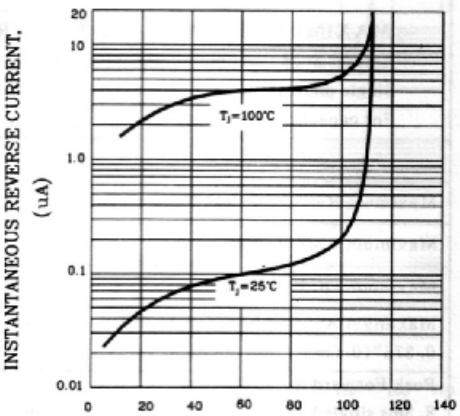


FIG.5–TYPICAL JUNCTION CAPACITANCE