GENERAL PURPOSE SILICON RECTIFIER

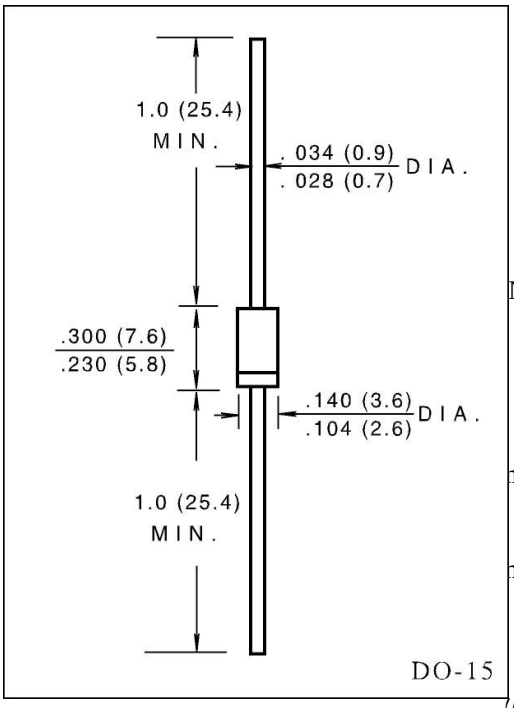
1N5391 THRU 1N5399

VOLTAGE RANGE 50 **to** 1000 **Volts**
CURRENT 1.5 **Amopere**

FEATURES

- Low cost construction.
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability.

260℃/10 seconds, 0.375" (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, 0.39grams

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%

		1N 5391	1N 5392	1N 5393	1N 5394	1N 5395	1N 5396	1N 5397	1N 5398	1N 5399	
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	3540	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℃	$I_{(AV)}$										
Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method)	I_{FSM}										
Maximum Instantaneous Forward Voltage at 1.5A	V_F										Volts
Maximum DC Reverse Current at rated DC blocking voltage	T_A = 25℃										
	T_A = 100℃										
Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at T_L = 75℃	$I_{R(AV)}$										
Typical Junction Capacitance (Note 1)	C_J										pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$										℃/W
Operating and Storage Temperature Range	T_J	(-65 to +175)									℃
Storage Temperature Range	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 0.375" (9.5mm) lead length, P.C. board mounted with 0.2" X 0.2" (5.0 X 5.0mm) copper pads.

RATINGS AND CHARACTERISTIC CURVES IN5391 THRU IN5399

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

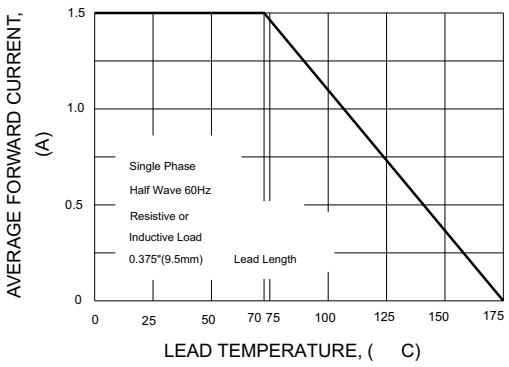


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

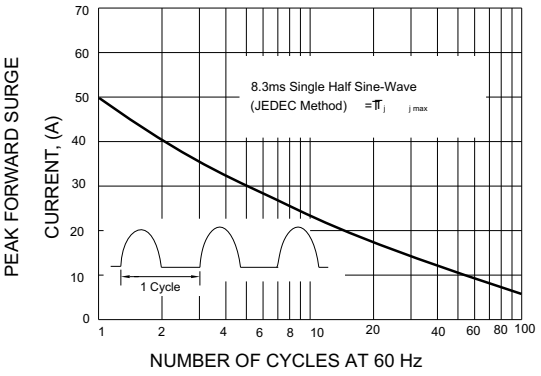


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

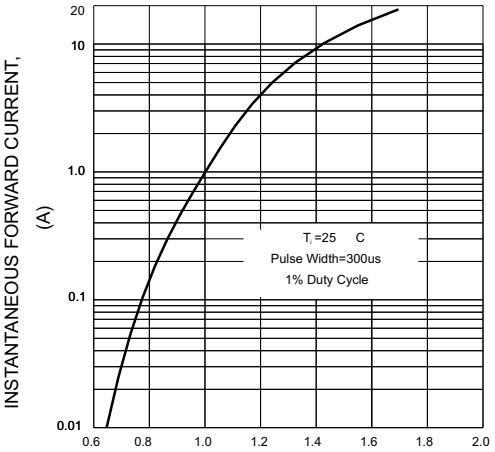


FIG.4-TYPICAL REVERSE CHARACTERISTICS

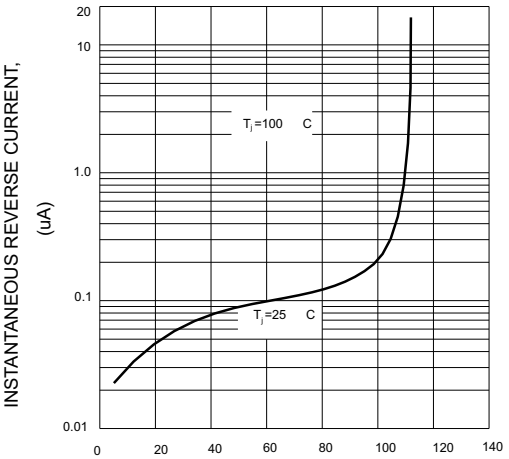


FIG.5-TYPICAL JUNCTION CAPACITANCE