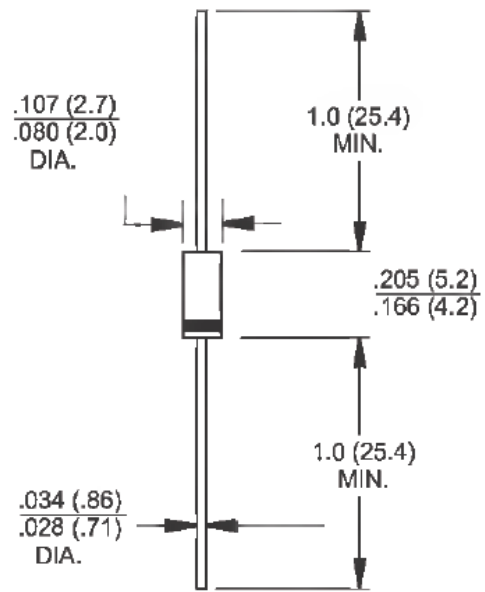




1N5391S - 1N5399S

1.5 AMPS Silicon Rectifiers

DO-41



Features

- ◇ High current capability, Low VF
- ◇ High reliability & Current capability
- ◇ High surge current capability
- ◇ Low power loss, high efficiency
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ◇ Case: Molded plastic DO-41
- ◇ Epoxy: UL 94V-0 rate flame retardant
- ◇ Lead: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ◇ Polarity: Color band denotes cathode
- ◇ High temperature soldering guaranteed: 260°C/10s
- ◇ Weight: 0.4 gram

Dimensions in inches and (millimeters)



Marking Diagram

- 1N539XS = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	1N 5391S	1N 5392S	1N 5393S	1N 5395S	1N 5397S	1N 5398S	1N 5399S	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length @ $T_A=60^\circ C$	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A
Maximum Instantaneous Forward Voltage (Note 1) @ 1.5A	V_F	1.1	1.0						V
Maximum Reverse Current @ Rated VR $T_A=25^\circ C$ $T_A=125^\circ C$	I_R	5							uA
Typical Junction Capacitance (Note 2)	C_j	30							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$ $R_{\theta JC}$	65 25 22							$^\circ C/W$
Operating Temperature Range	T_J	- 65 to + 125							$^\circ C$
Storage Temperature Range	T_{STG}	- 65 to + 150							$^\circ C$

Note1: Pulse Test with PW=300usec, 1% Duty Cycle

Note1: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

Note2: Mount on Cu-Pad Size 16mm × 16mm on P.C.B.

RATINGS AND CHARACTERISTIC CURVES (1N5391S - 1N5399S)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

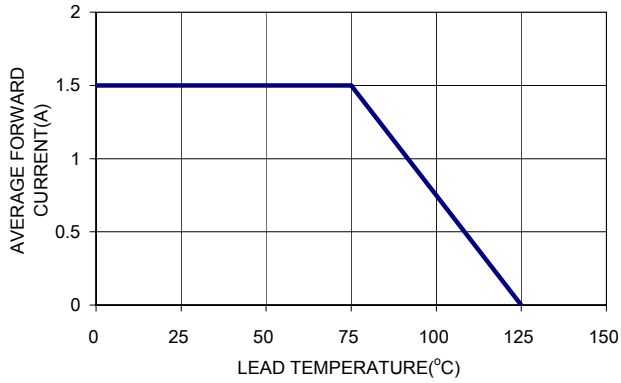


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

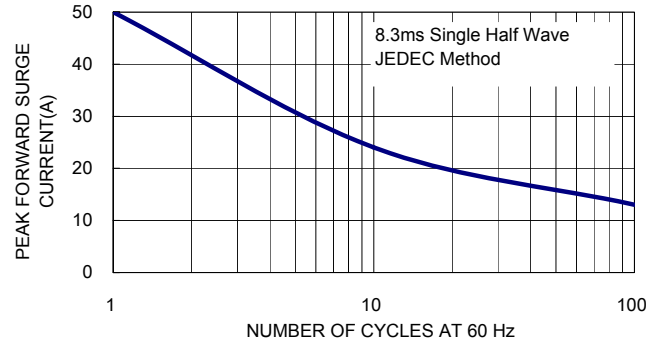


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

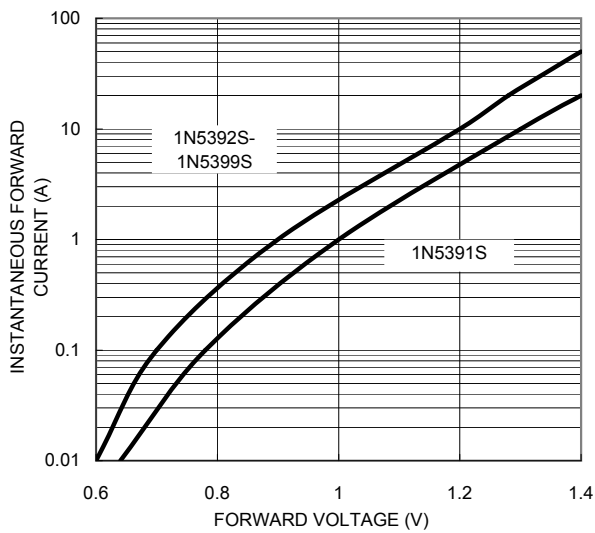


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

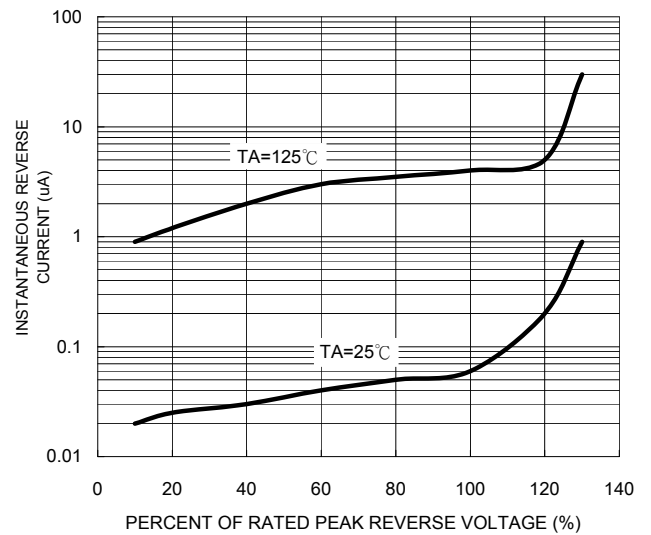


FIG. 5 TYPICAL JUNCTION CAPACITANCE

