

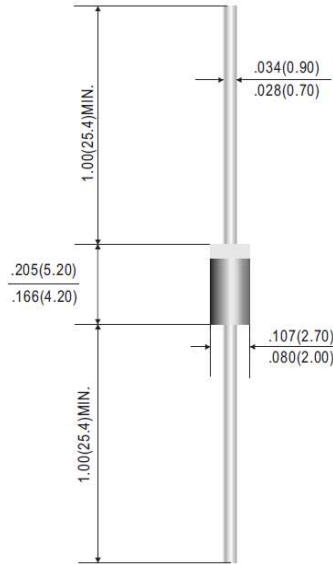


1N5391SG THRU 1N5399SG

GLASS PASSIVATED SILICON RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.5Amperes

DO-41



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375"(9.5mm) lead length,
5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-41 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.014 ounce, 0.40 grams

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 current derate by 20%.

PARAMETER	SYMBOLS	1N 5391SG	1N 5392SG	1N 5393SG	1N 5394SG	1N 5395SG	1N 5396SG	1N 5397SG	1N 5398SG	1N 5399SG	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 $T_A=75^{\circ}C$	$I_{(AV)}$	1.5									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0									Amps
Maximum instantaneous forward voltage at 1.5A	V_F	1.1									Volts
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=100^{\circ}C$	I_R	5.0 50.0									A
Typical junction capacitance (NOTE 1)	C_J	20.0									pF
Typical thermal resistance (NOTE 2)	R_{JA}	50.0									$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175									$^{\circ}C$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

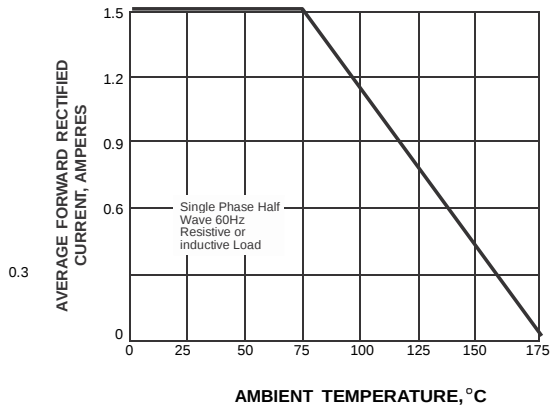


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

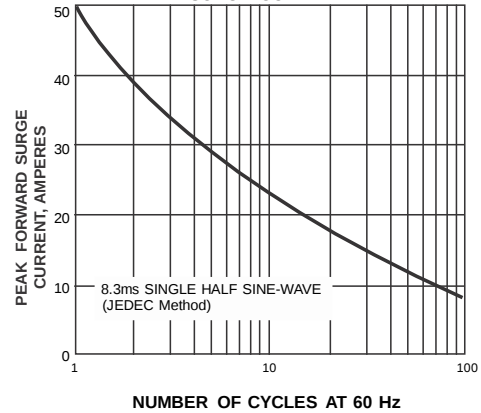


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

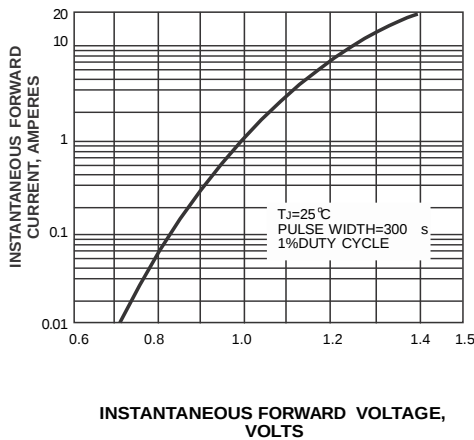


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

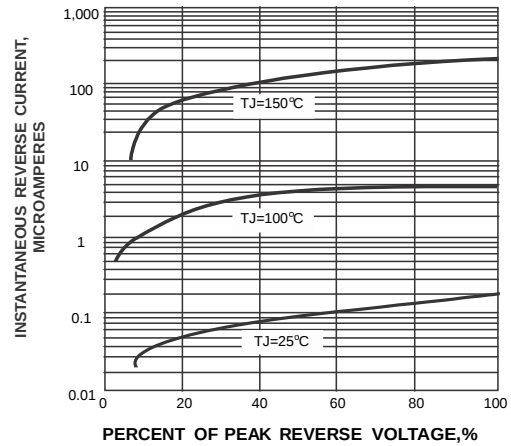


FIG. 5-TYPICAL JUNCTION CAPACITANCE

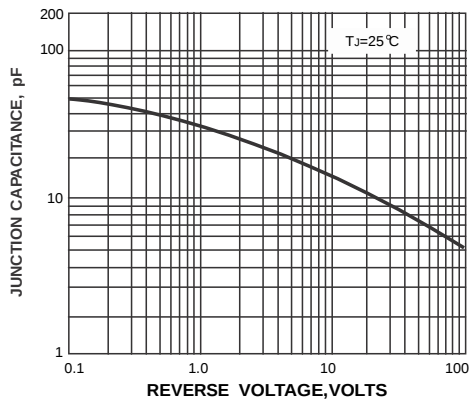


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

