

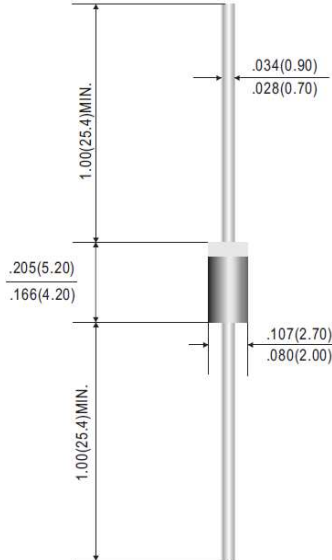


1N5391SG THRU 1N5399SG

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	1N	1N	1N	1N	1N	1N	1N	1N	UNITS
		5391SG	5392SG	5393SG	5394SG	5395SG	5396SG	5397SG	5398SG	5399SG	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	300	400	500	600	800	1000	V _{OLTS}
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	350	420	560	700	V _{OLTS}
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	500	600	800	1000	V _{OLTS}
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _A =75°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°C at rated DC blocking voltage T _A =100°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									°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175									°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

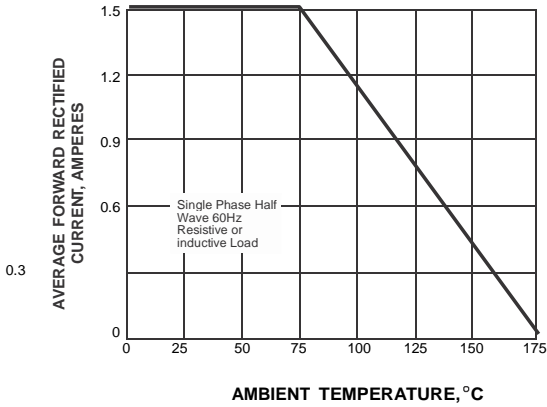


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

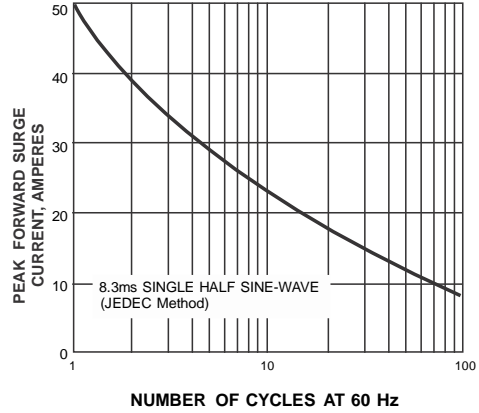


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

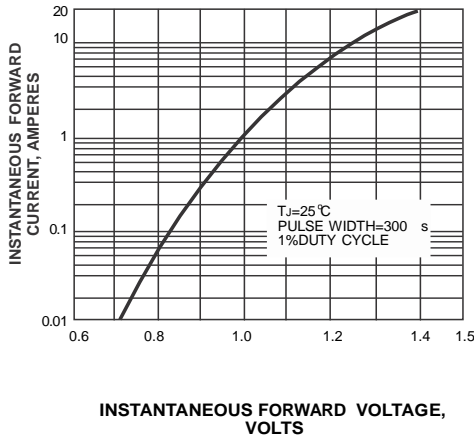


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

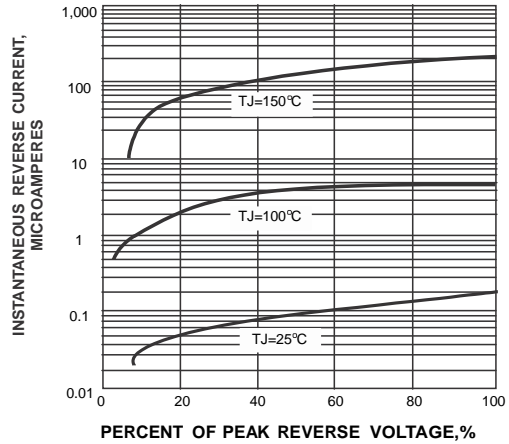


FIG. 5-TYPICAL JUNCTION CAPACITANCE

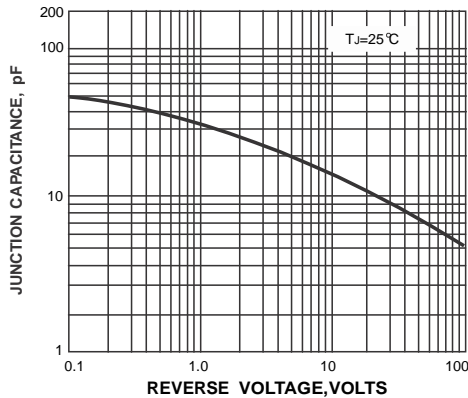


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

