

PLASTIC SILICON RECTIFIER

VOLTAGE- 50 to 1000 Volts CURRENT - 1.5 Amperes

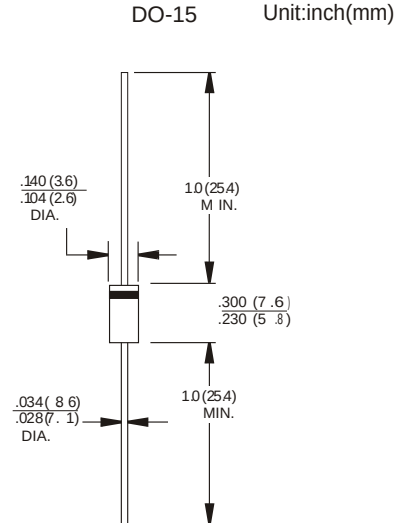


FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0 utilizing
- 1.5 Ampere operation at $T_L = 70^\circ\text{C}$ with no thermal runaway.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: Molded plastic, DO-15
- Terminals: Axial leads, solderable to MIL-STD-202, Method 208
- Polarity: Color Band denotes cathode end
- Mounting Position : Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz, Single phase, half wave,

For capacitive load, derate current by 20%

	Symbols	1N5391	1N539	1N5393	1N5394	1N5395	1N5396	1N5397	1N5398	1N5399	UNIT
Maximum Recurrent Peak Reverse voltage	VRRM	50	100	200	300	400	500	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	210	280	350	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	500	600	800	1000	V
Maximum Average Forward Current .375"(9.5 mm) lead length at $T_A = 75^\circ\text{C}$	I(AV)	1.5									A
Peak Forward Surge Current, IFM(surge): 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	50									A
Maximum Forward Voltage at 1.5A DC	VF	1.1									V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 25^\circ\text{C}$	IR	5.0									μA
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	IR	500									μA
Typical Junction capacitance (Note 1)	CJ	25.0									pF
Typical Junction Resistance (Note 2)	R θ JA	26.0									$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	TJ, TSTG	-55 to +150									$^\circ\text{C}$

NOTES • 1 Measured at 1 MHz and applied reverse voltage of 4.0 VDC

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

RATING AND CHARACTERISTIC CURVES

1N5391 THRU 1N5399

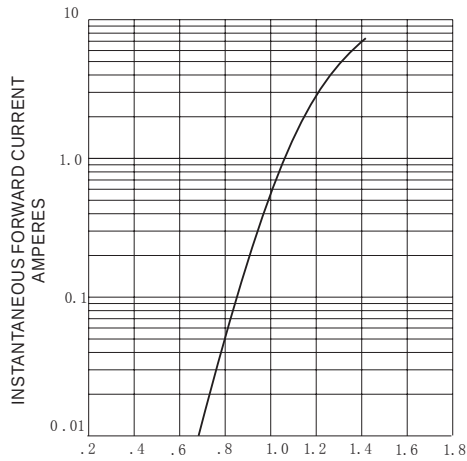


Fig. 1-TYPICAL FORWARD CHARACTERISTICS

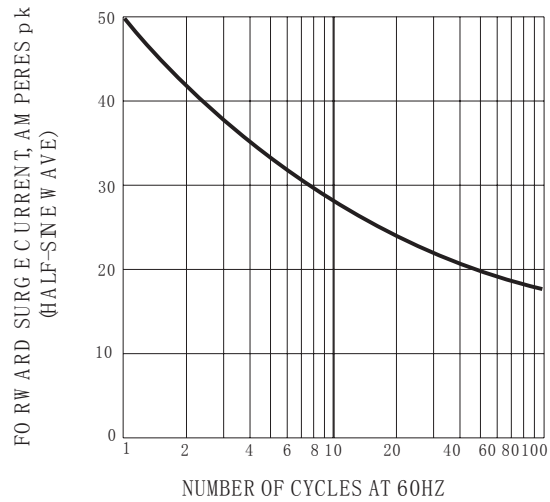


Fig. 2-MAXIMUM OVERLOAD SURGE-CURRENT

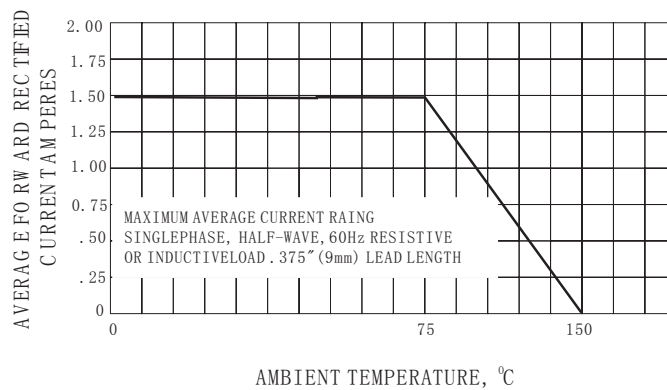


Fig. 3-FORWARD DERATING CURVE

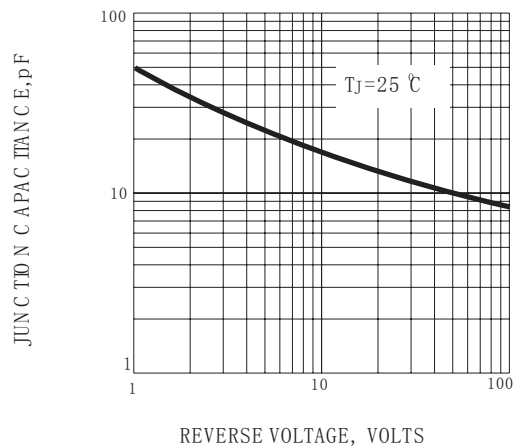


Fig. 4-TYPICAL JUNCTION CAPACITANCE