



# DATA SHEET

## 1N5391~1N5399

### PLASTIC SILICON RECTIFIER

**VOLTAGE** 50 to 1000 Volts **CURRENT** 1.5 Amperes

**DO-15**

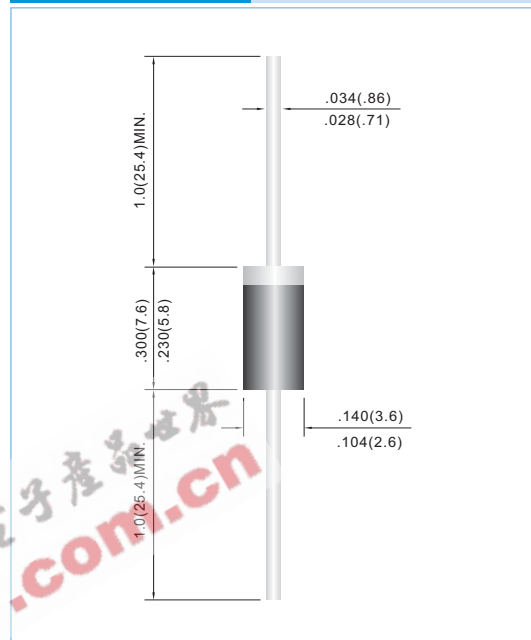
Unit: inch(mm)

#### FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.
- Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20% Pb  
Pb free: 98.5% Sn above

#### 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  
Weight: 0.015 ounce, 0.4 gram



#### 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%

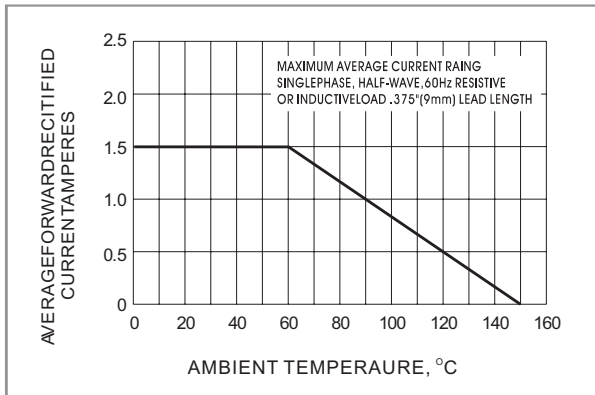
PARAMETER	SYMBOL	1N5391	1N5392	1N5393	1N5394	1N5395	1N5396	1N5397	1N5398	1N5399	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	300	400	500	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	350	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	500	600	800	1000	V
Maximum Average Forward Current .375"(9.5mm) lead length at TA=60°C	I <sub>AV</sub>	1.5									A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	50									A
Maximum Forward Voltage at 1.5A	V <sub>F</sub>	1.4									V
Maximum DC Reverse Current TA=25°C at Rated DC Blocking Voltage TA=100°C	I <sub>R</sub>	5.0 500									uA
Typical Junction capacitance (Note 1)	C <sub>J</sub>	25									pF
Typical Thermal Resistance(Note 2)	R <sub>θJA</sub> R <sub>θJL</sub>	45 28									°C / W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 TO +150									°C

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

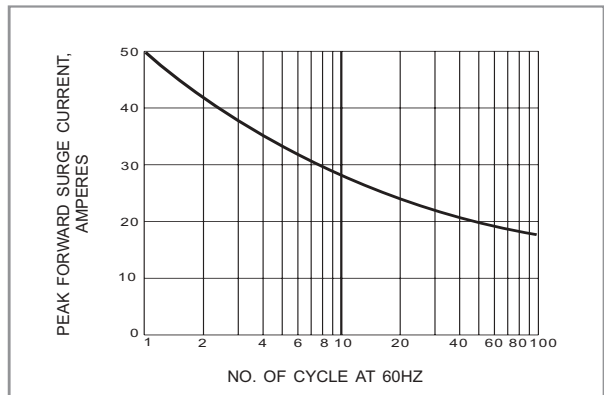
2. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted



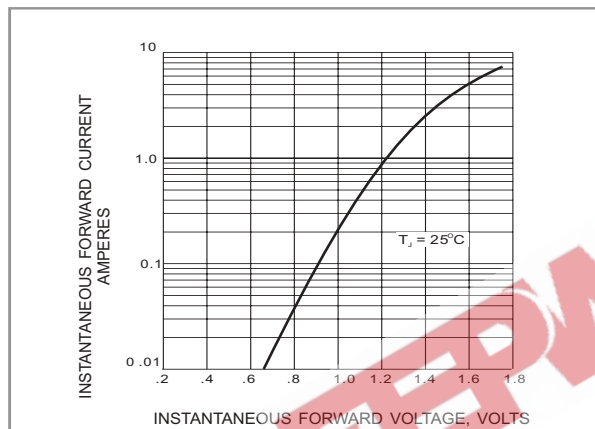
**RATING AND CHARACTERISTIC CURVES**



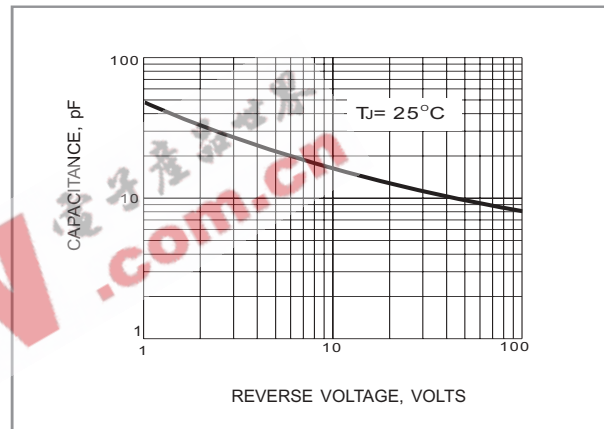
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM OVERLOAD SURGE CURRENT**



**Fig.3- TYPICAL FORWARD CHARACTERISTIC**



**Fig.4- TYPICAL JUNCTION CAPACITANCE**