

## PLASTIC SILICON RECTIFIER

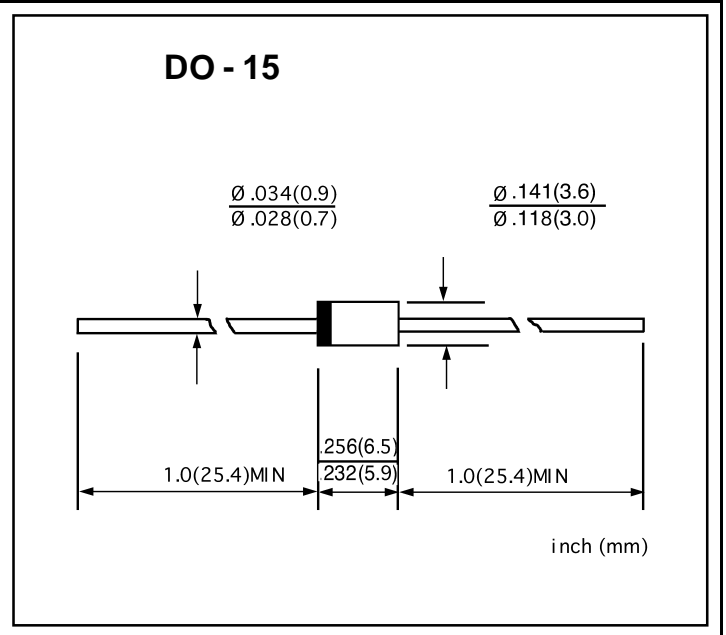
VOLTAGE RANGE: 50 --- 1000 V  
CURRENT: 1.5 A

### FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Freon, Alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

### MECHANICAL DATA

- ◇ Case: JEDEC DO-15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces 0.39 grams
- ◇ Mounting position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

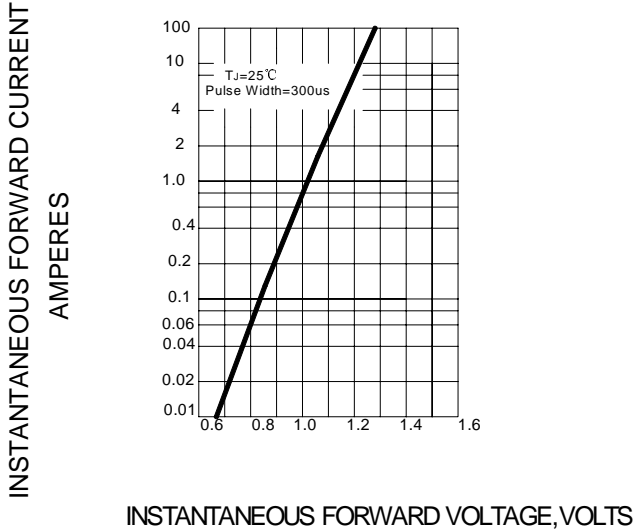
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		1N 5391	1N 5392	1N 5393	1N 5394	1N 5395	1N 5396	1N 5397	1N 5398	1N 5399	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	1.5									A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	50.0									A
Maximum instantaneous forward voltage @ 1.5 A	$V_F$	1.1									V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	5.0 50.0									$\mu A$
Typical junction capacitance (Note1)	$C_J$	20									pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	40									$^\circ C/W$
Operating junction temperature range	$T_J$	- 55 --- + 150									$^\circ C$
Storage temperature range	$T_{STG}$	- 55 --- + 150									$^\circ C$

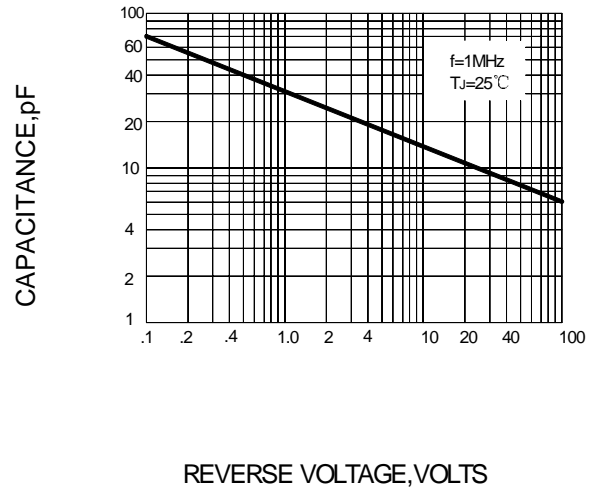
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Thermal resistance from junction to ambient.

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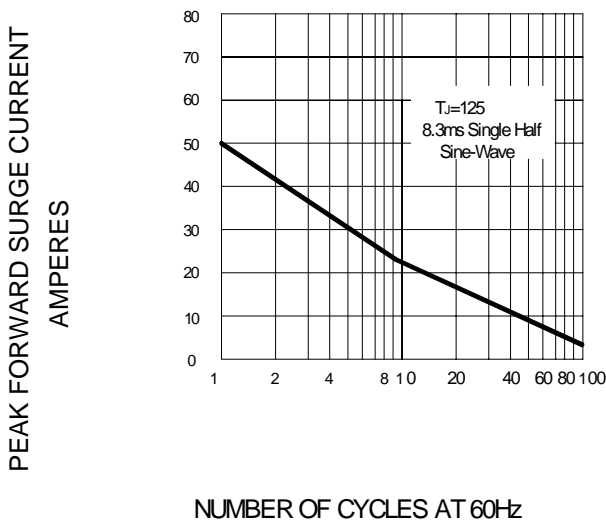
**FIG.1 – TYPICAL FORWARD CHARACTERISTIC**



**FIG.2 – TYPICAL JUNCTION CAPACITANCE**



**FIG.3 – PEAK FORWARD SURGE CURRENT**



**FIG.4 – FORWARD DERATING CURVE**

