

PLASTIC SILICON RECTIFIER

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 5.0 A

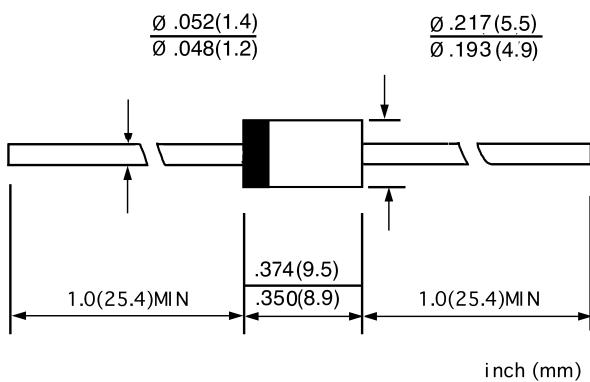
FEATURES

- ◇ 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-27, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

DO - 27



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%.

		BY 550-50	BY 550-100	BY 550-200	BY 550-400	BY 550-600	BY 550-800	BY 550-1000	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, $@T_A=75^\circ C$	$I_{F(AV)}$	5.0						A	
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load $@T_j=125^\circ C$	I_{FSM}	300.0						A	
Maximum instantaneous forward voltage $@ 5.0 A$	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	10.0 100.0						μA	
Typical junction capacitance (Note1)	C_J	80						pF	
Typical thermal resistance (Note2)	$R_{\theta JA}$	15						$^\circ C/W$	
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.

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2. Thermal resistance from junction to ambient.

FIG.1 – TYPICAL FORWARD CHARACTERISTICS

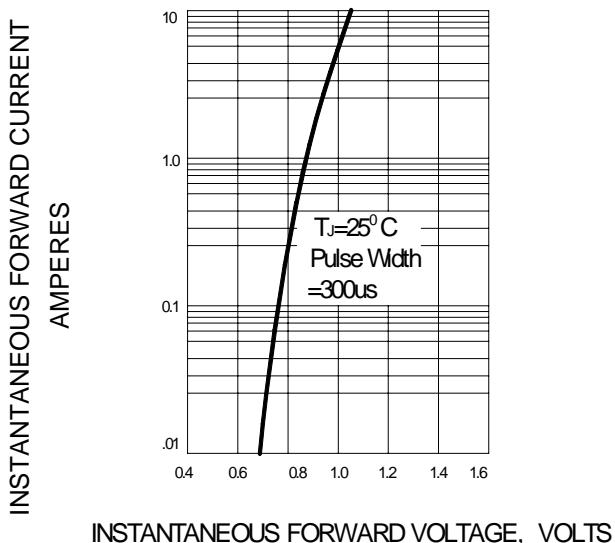


FIG.2 – TYPICAL FORWARD DERATING CURVE

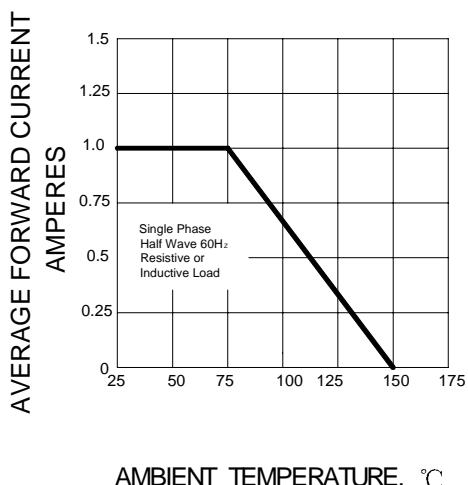


FIG.3 – PEAK FORWARD SURGE CURRENT

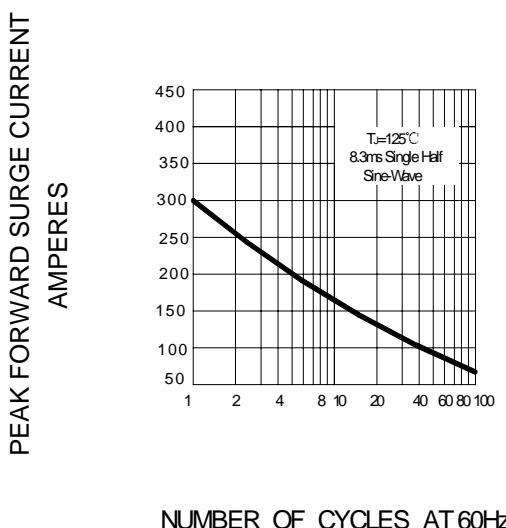


FIG.4 – TYPICAL JUNCTION CAPACITANCE

