

### PLASTIC SILICON RECTIFIERS

**VOLTAGE RANGE: 100 --- 1000 V**  
**CURRENT: 5.0 A**

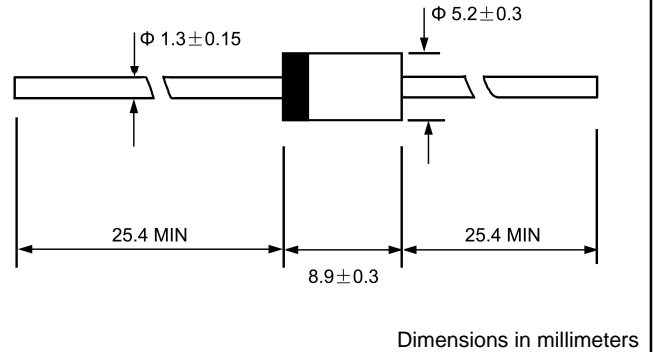
#### FEATURES

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability

#### 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.

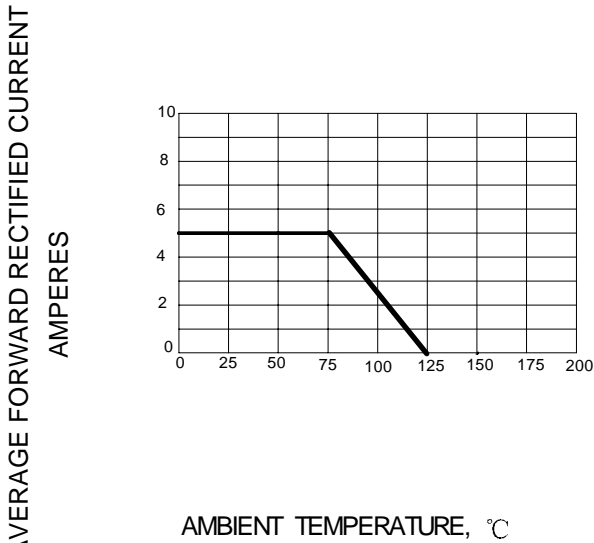
Single phase, half wave, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		5A1	5A2	5A4	5A6	5A8	5A10	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	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 10ms single half-sine-wave superimposed on rated load	$I_{FSM}$	300						A
Maximum instantaneous forward voltage @5.0A	$V_F$	1.2						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						$\mu A$
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 ---- +125						$^\circ C$
Storage temperature range	$T_{STG}$	- 55 ---- +150						$^\circ C$

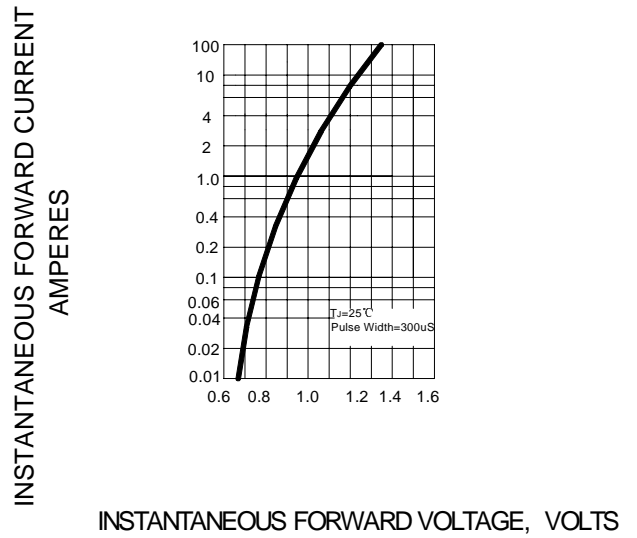
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 2. Thermal resistance from junction to ambient.

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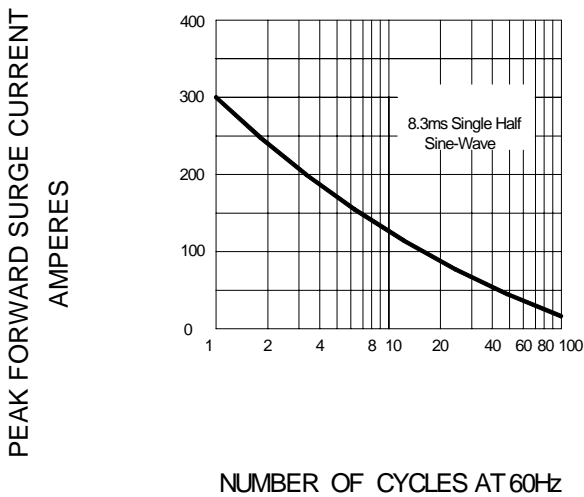
**FIG.1 – FORWARD DERATING CURVE**



**FIG.2 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**

