

### PLASTIC SILICON RECTIFIERS

VOLTAGE RANGE: 200 --- 1300 V  
CURRENT: 3.0 A

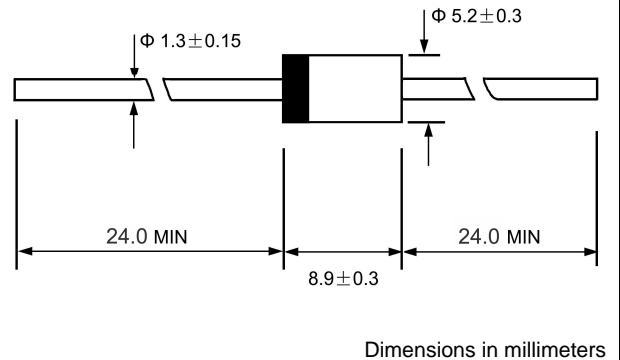
#### FEATURES

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

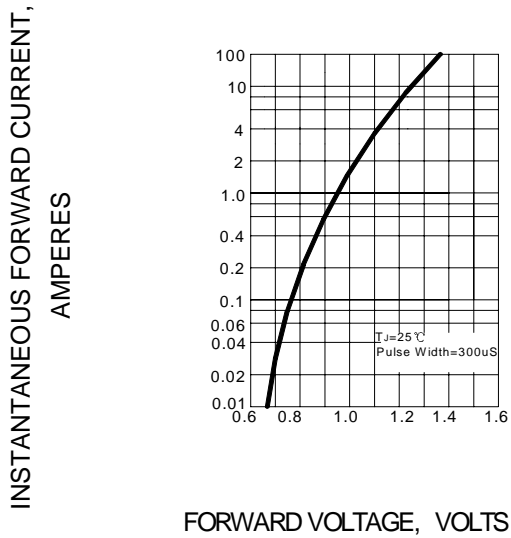
		BY 251	BY 252	BY 253	BY 254	BY 255	UNITS
Maximum recurrent peak reverse voltage	$V_{RRM}$	200	400	600	800	1300	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	560	910	V
Maximum DC blocking voltage	$V_{DC}$	200	400	600	800	1300	V
Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	3.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	100.0					A
Maximum instantaneous forward voltage @ 3.0 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					$\mu A$
Typical junction capacitance (Note1)	$C_J$	35					pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	20					$^\circ C/W$
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.

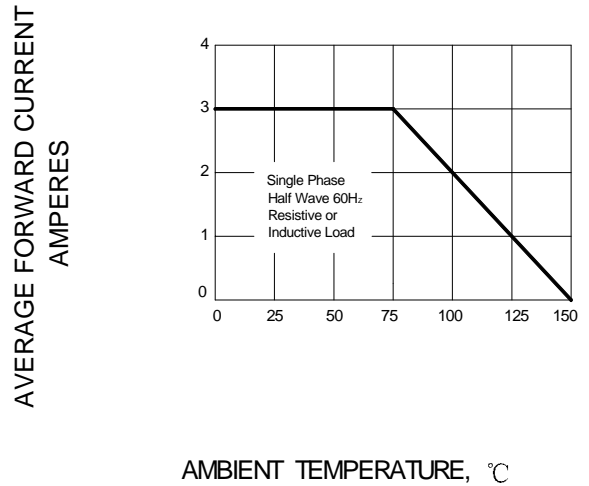
2. Thermal resistance from junction to ambient.

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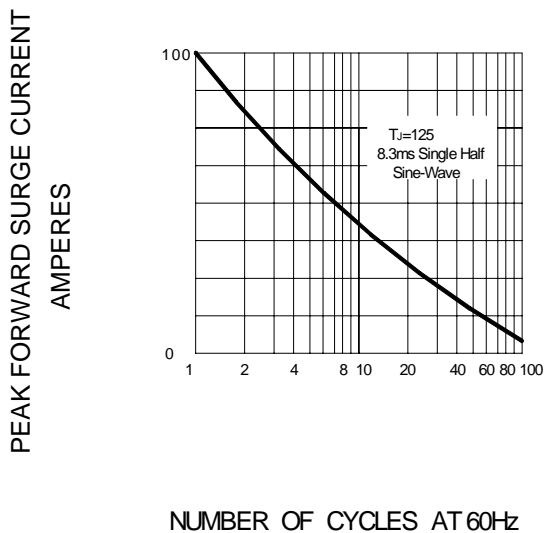
**FIG.1 – TYPICAL FORWARD CHARACTERISTICS**



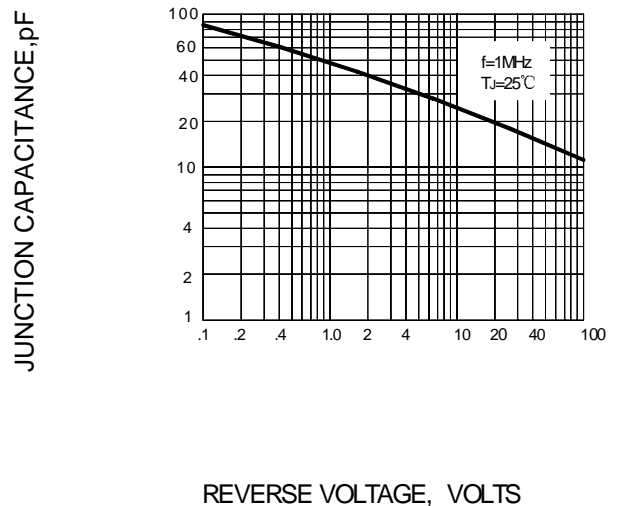
**FIG.2 – TYPICAL CURRENT DERATING CURVE**



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

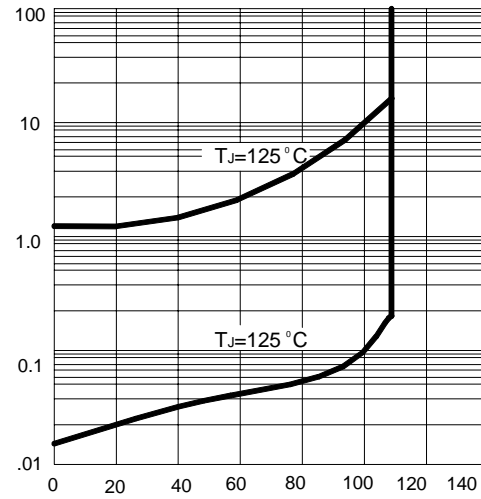


**FIG.4 – TYPICAL JUNCTION CAPACITANCE**



**FIG.5 – TYPICAL REVERSE CHARACTERISTICS**

REVERSE LEAKAGE CURRENT, MICRO AMPERES



PERCENT OF RATED PEAK REVERSE VOLTAGE, %