

**PLASTIC SILICON RECTIFIERS**

**VOLTAGE RANGE: 100 --- 1000 V**  
**CURRENT: 16 A**

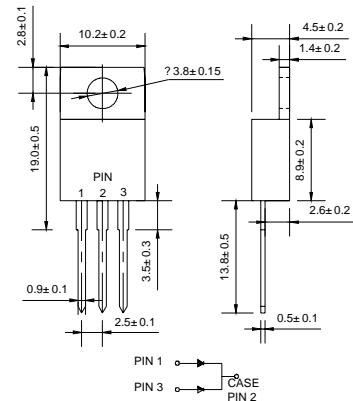
**FEATURES**

- ◇ 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 TO-220AB, molded plastic
- ◇ Terminals: Solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.71 ounce, 2.006 grams
- ◇ Mounting position: Any

**TO-220AB**



Dimensions in millimeters

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

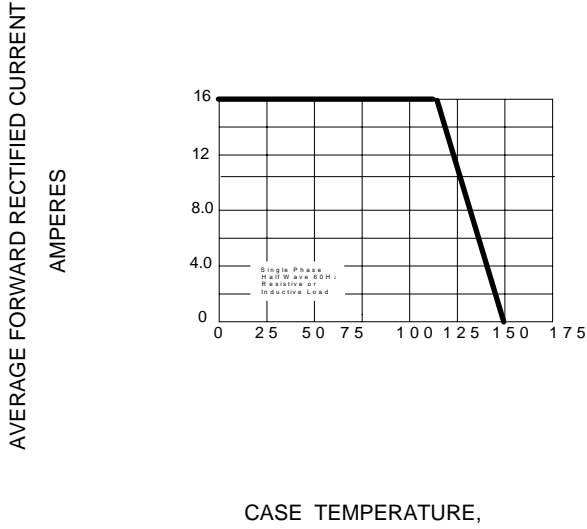
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		16A10C	16A20C	16A40C	16A60C	16A80C	16A100C	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 @ $T_C=120^\circ\text{C}$	$I_{F(AV)}$	16						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	$I_{FSM}$	400						A
Maximum instantaneous forward voltage @ 8.0 A	$V_F$	1.0						V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	10 100						$\mu\text{A}$
Typical junction capacitance (Note1)	$C_J$	120						pF
Typical thermal resistance (Note2)	$R_{\theta JC}$	2.0						$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	- 55 ---- + 150						$^\circ\text{C}$
Storage temperature range	$T_{STG}$	- 55 ---- + 150						$^\circ\text{C}$

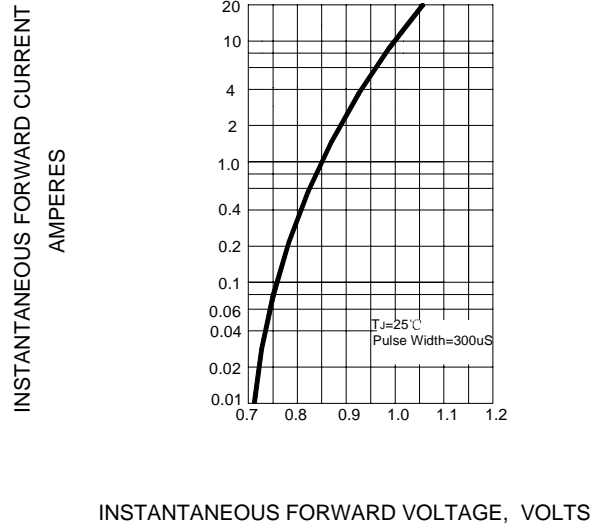
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to case.

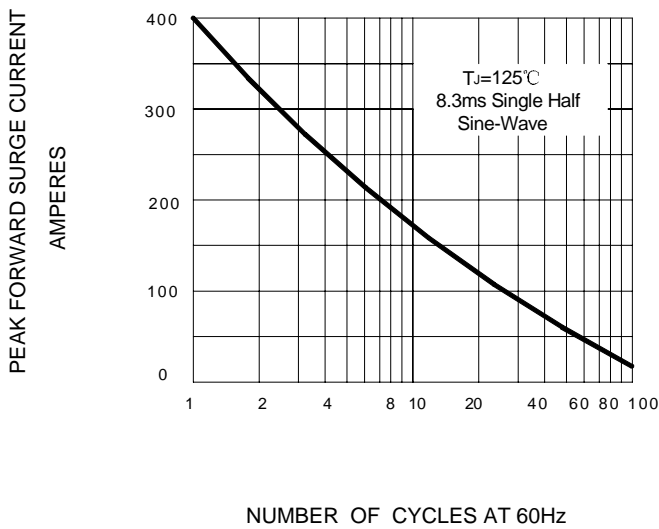
**FIG.1 – FORWARD DERATING CURVE**



**FIG.2 – TYPICAL FORWARD CHARACTERISTICS**



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



**FIG.4 – TYPICAL JUNCTION CAPACITANCE**

