

PLASTIC SILICON RECTIFIERS

VOLTAGE RANGE: 100 --- 1000 V
CURRENT: 20 A

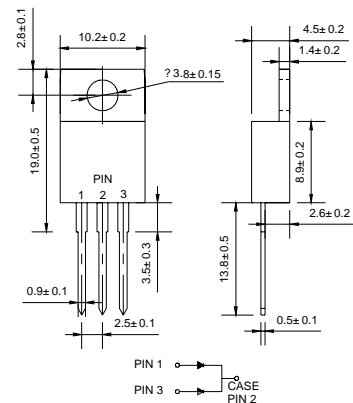
FEATURES

- ◇ 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: 0.071 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%.

		20A10C	20A20C	20A40C	20A60C	20A80C	20A100C	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 @ $T_C = 110^\circ C$	$I_{F(AV)}$	20						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J = 125^\circ C$	I_{FSM}	400						A
Maximum instantaneous forward voltage @ 10 A	V_F	1.0						V
Maximum reverse current @ $T_A = 25^\circ C$ at rated DC blocking voltage @ $T_A = 100^\circ C$	I_R	10 100						μA
Typical junction capacitance (Note1)	C_J	150						pF
Typical thermal resistance (Note2)	$R_{\theta JC}$	2.0						$^\circ C/W$
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 case.

FIG.1 – FORWARD DERATING CURVE

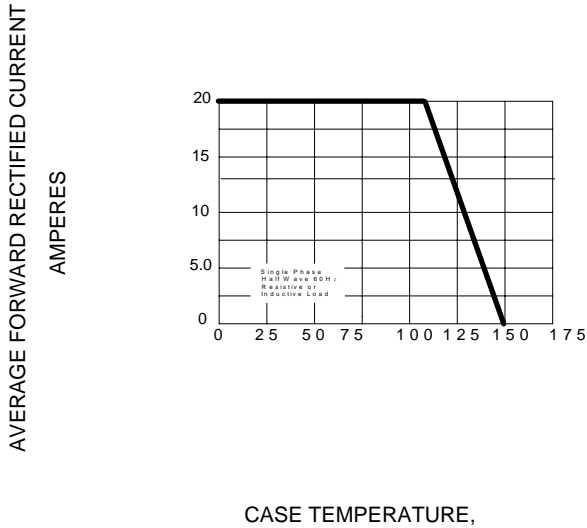


FIG.2 – TYPICAL FORWARD CHARACTERISTICS

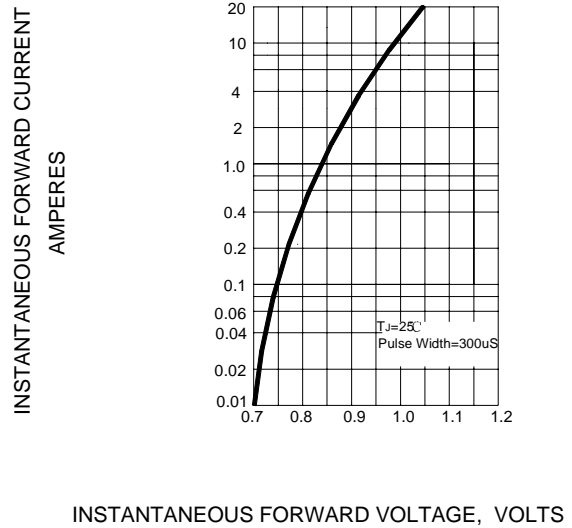


FIG.3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

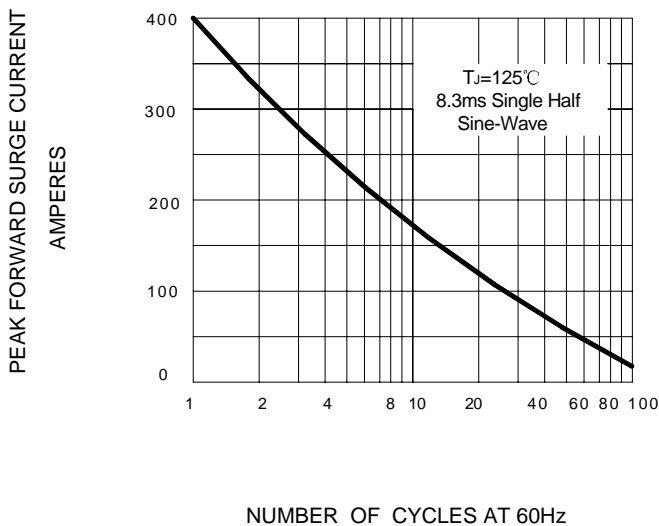


FIG.4 – TYPICAL JUNCTION CAPACITANCE

