

ULTRA FAST RECTIFIERS

VOLTAGE RANGE: 100 --- 800 V
CURRENT: 8.0A

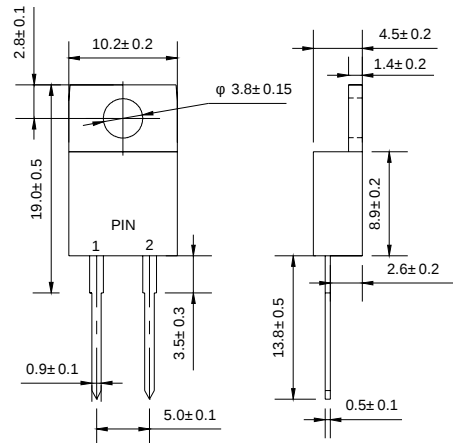
FEATURES

- ◇ Metal-Semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop, low switching losses
- ◇ High surge capability
- ◇ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC TO-220AC, molded plastic
- ◇ Terminals: Solderable per MIL-STD-750, Method 2026
- ◇ Polarity: As marked
- ◇ Weight: 0.064 ounces, 1.96 gram
- ◇ Mounting position: Any

TO - 220AC



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%.

		UF810	UF820	UF830	UF840	UF860	UF880	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	100	200	300	400	600	800	V
Maximum RMS voltage	V _{RMS}	70	140	210	280	420	560	V
Maximum DC blocking voltage	V _{DC}	100	200	300	400	600	800	V
Maximum average forward rectified current (see fig.1)	I _{F(AV)}	8.0						A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	125						A
Maximum instantaneous forward voltage @ 8.0A (Note 1)	V _F	1.0		1.3		1.7		V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	10 500						μ A
Typical thermal resistance (Note 2)	R _{θJA}	60						°C/W
Maximum reverse recovery time (Note 3)	t _{rr}	50				100		ns
Operating junction temperature range	T _J	-55 ---- + 150						°C
Storage temperature range	T _{STG}	- 55 ---- +150						°C

NOTE: 1. Pulse test: 300us pulse width, 1% duty cycle.

2. Thermal resistance junction to ambient

3. Reverse recovery test conditions: $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$

www.galaxycn.com

FIG.1 -- FORWARD CURRENT DERATING CURVE

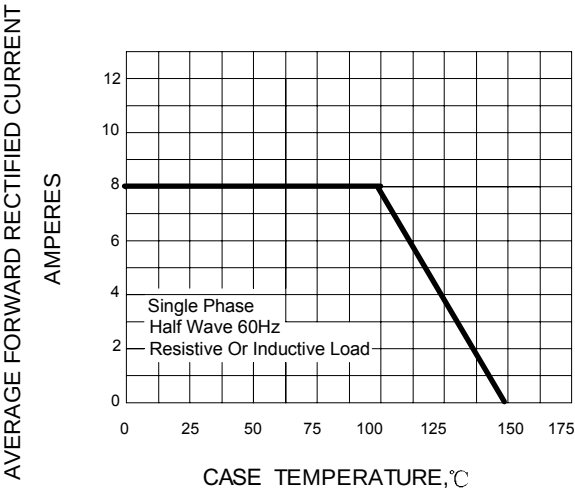


FIG.2 -- PEAK FORWARD SURGE CURRENT

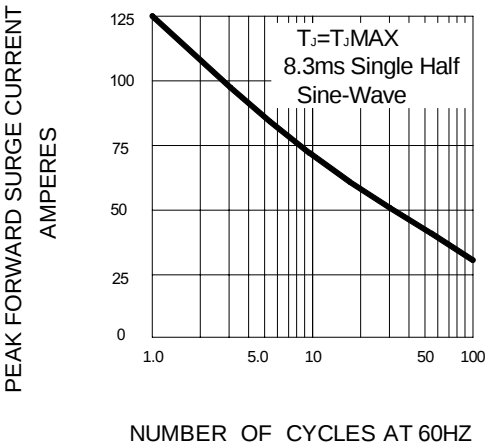


FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

