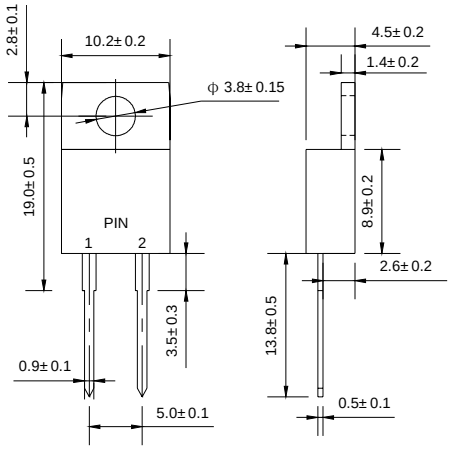
UF810-UF880

Ultra Fast Rectifiers

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

TO - 220AC



Dimensions in millimeters

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-O

Mechanical Data

- ◇ Case:JEDEC TO--220AC,molded plastic
- ◇ Polarity: As marked
- ◇ Weight: 0.064 ounces,1.96 gram
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ 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℃	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℃ at rated DC blocking voltage @T_A=100℃	I_R	10 500						μA
Typical thermal resistance (Note 2)	$R_{\theta JA}$	60						℃/W
Maximum reverse recovery time (Note 3)	t_{rr}	50				100		ns
Operating junction temperature range	T_J	-55 ---- + 150						℃
Storage temperature range	T_{STG}	- 55 ---- +150						℃

NOTE: 1. Pulse test:300us pulse width,1% duty cycle.
2.Thermal resistance junction to ambient
3.Reverse recovery test conditions:I_F=0.5A,I_R=1A,I_{rr}=0.25A

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Ratings AND Charactieristic Curves

FIG.1 -- FORWARD CURRENT DERATING CURVE

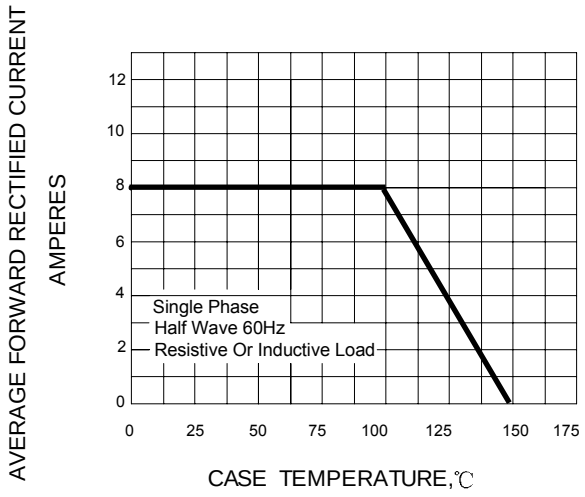

FIG.2 -- PEAK FORWARD SURGE CURRENT

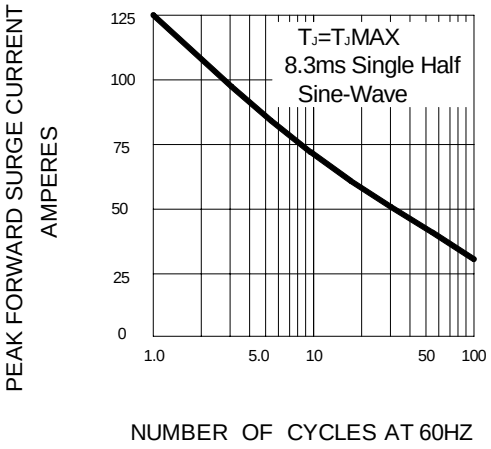

FIG.3 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS