

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 50 --- 600V

CURRENT: 8.0A

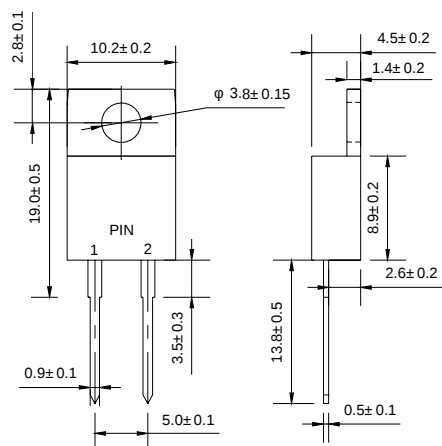
FEATURES

- Low cost
- Diffused junction
- Glass passivated junction
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol, Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- Case: JEDEC TO-220AC
- Terminals: solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- 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%.

		USF 805	USF 810	USF 820	USF 830	USF 840	USF 850	USF 860	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	200	300	400	500	600	V
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	350	420	V
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	500	600	V
Maximum average forward rectified current total device (rated V _R), T _C =100	I _(AV)	8.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I _{FSM}	100							A
Maximum instantaneous forward voltage (Note1) @I _F =8.0A	V _F	0.98			1.3		1.7		V
Maximum reverse current @T _J =25 at rated DC blocking voltage @T _J =125	I _R	30 800							μA
Maximum reverse recovery time (Note2)	t _{rr}	25							ns
Typical thermal resistance junction to case	R _{θjC}	5.0							/W
Operating junction temperature range	T _j	- 55 ---- + 150							
Storage temperature range	T _{STG}	- 55 ---- + 150							

NOTE:1. Pulse test: pulse width=300 μs , duty cycle $\leq 2.0\%$

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2. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25 A$.

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

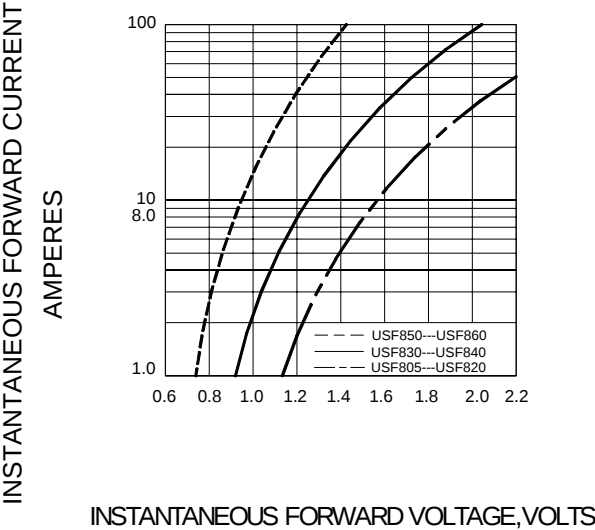


FIG.2 –TYPICAL REVERSE CHARACTERISTICS

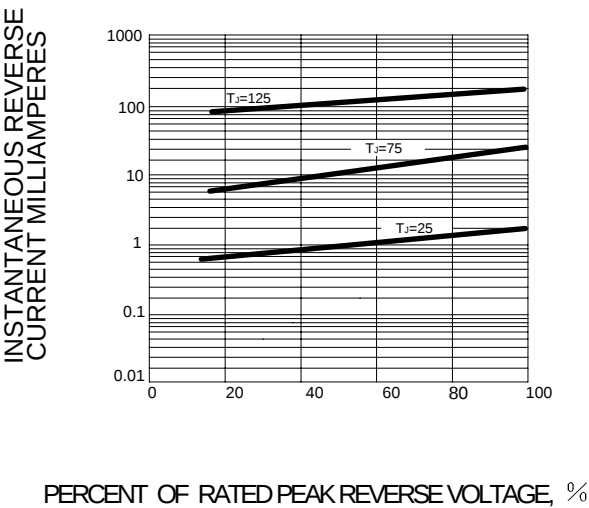


FIG.3 – PEAK FORWARD SURGE CURRENT

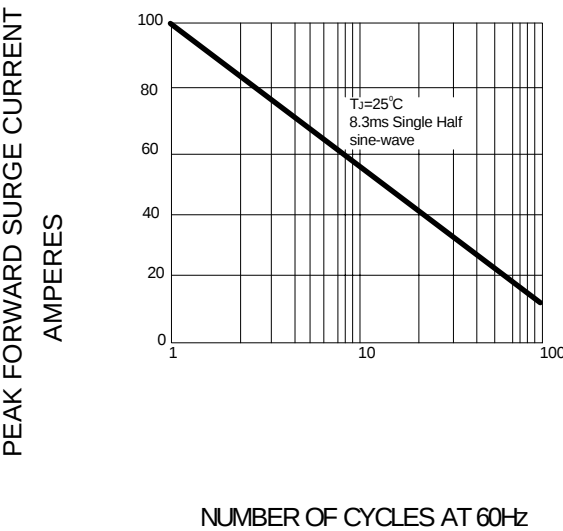


FIG.4 – FORWARD DERATING CURVE

