ULTRA FAST RECTIFIERS

VOLTAGE RANGE: 100 --- 800 V
CURRENT: 10 A

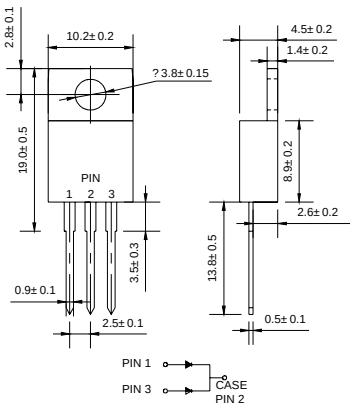
FEATURES

- ◇ Low cost
- ◇ Diffusde junction
- ◇ Glass passivated chip junction
- ◇ 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
- ◇ Terminals: Solderable per MIL- STD-202,Method 208
- ◇ Polarity: As marked
- ◇ Weight: 0.071 ounces,2.006 gram
- ◇ Mounting position: Any

TO-220AB



Dimensions in millimeters

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%.

		UF 1010C	UF 1020C	UF 1030C	UF 1040C	UF 1060C	UF 1080C	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 @T_C=100℃	$I_{F(AV)}$	10						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 @ 5.0A	V_F	1.0		1.3		1.7		V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=125℃	I_R	10 500						μA
Maximum reverse recovery time (Note1)	t_{rr}	50				100		ns
Typical junction capacitance (Note2)	C_J	80				50		pF
Typical thermal resistance (Note3)	$R_{\theta JA}$	60						℃/W
Operating junction temperature range	T_J	- 55 ----- + 150						℃
Storage temperature range	T_{STG}	- 55 ----- + 150						℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2. Measured at 1.0MH_Z and applied reverse voltage of 4.0V DC.

3.Thermal resistance junction to ambient

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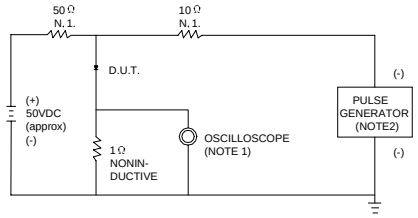
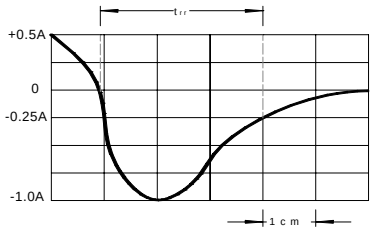
FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

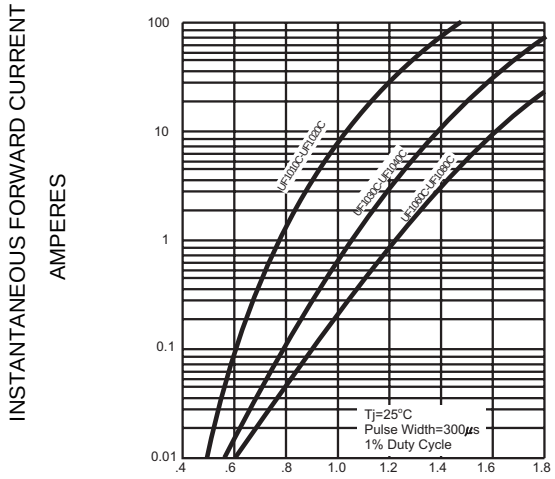


NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ.22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.



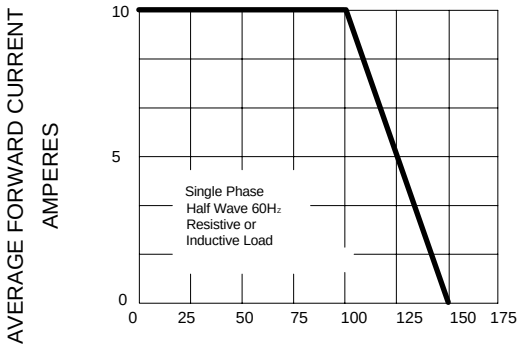
SET TIME BASE FOR 10/20 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC



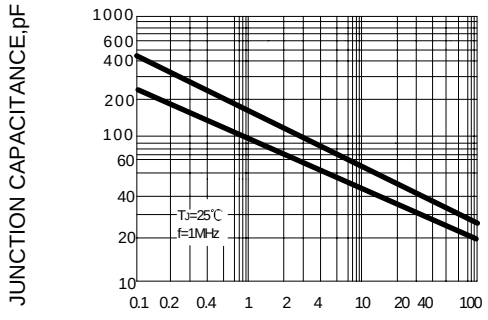
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 -- FORWARD DERATING CURVE



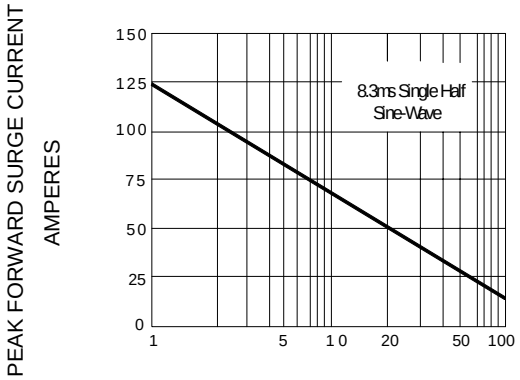
CASE TEMPERATURE, ℃

FIG.4 -- TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE,VOLTS

FIG.5 -- PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60Hz