



FRONTIER
ELECTRONICS CO., LTD.

UF20-005
THRU
UF20-10

2A ULTRA FAST RECOVERY RECTIFIER

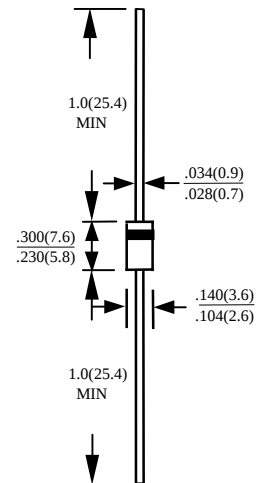
FEATURES

- PLASTIC PACKAGE HAS UNDERWRITERS LABORATORY FLAMMABILITY CLASSIFICATION 94V-0
- ULTRA FAST RECOVERY TIMES FOR HIGH EFFICIENCY
- LOW FORWARD VOLTAGE, HIGH CURRENT CAPABILITY
- LOW LEAKAGE
- HIGH SURGE CAPABILITY
- HIGH TEMPERATURE SOLDERING GUARANTEED :
260°C .375" (9.5mm) LEAD LENGTHS FOR 10 SECONDS AT
5 LBS.(2.3KG) TENSION

MECHANICAL DATA

- CASE : MOLDED PLASTIC
- TERMINALS : AXIAL LEADS SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY : COLOR BAND DENOTES CATHODE END
- MOUNTING POSITION : ANY
- WEIGHT : 0.4 GRAMS

CASE-DO15



DIMENSIONS IN INCHES AND (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 CURRENT BY 20%

RATINGS	SYMBOL	UF20 -005	UF20 -01	UF20 -02	UF20 -04	UF20 -06	UF20 -08	UF20 -10	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V _{RRM}	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V _{RMS}	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V _{DC}	50	100	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT .375" (9.5mm) LEAD LENGTH AT TA=55°C	I _O	2.0							A
PEAK FORWARDSURGE CURRENT, 8.3ms SINGLE HALF SINE- WAVE SUPERIMPOSED ON RATED LOAD	I _{FSM}	60							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C _J	30			20				PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	R _{θja}	25							°C/W
STORAGE TEMPERATURE RANGE	T _{STG}	-55 TO + 150							°C
OPERATING TEMPERATURE RANGE	T _{OP}	-55 TO + 150							°C

ELECTRICAL CHARACTERISTICS ($A_T T_A = 25^{\circ}C$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	-005	-01	-02	-04	-06	-08	-10	UNITS	
MAXIMUM FORWARD VOLTAGE AT I _O DC	V _F	1.0		1.3		1.5	1.7		V	
MAXIMUM DC REVERSE CURRENT AT TA=25°C	I _R	10								μA
MAXIMUM DC REVERSE CURRENT AT TA=100°C	I _R	100								μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	T _{RR}	50				75				nS

NOTES :

- 1.MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
- 2.BOTH LEADS ATTACHED TO HEATSINK 35x 35x 1t(mm) COPPER PLATE AT LEAD LENGTH 5mm
- 3.REVERSE RECOVERY TEST CONDITIONS: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

RATINGS AND CHARACTERISTIC CURVE UF20-005 THRU UF20-10

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

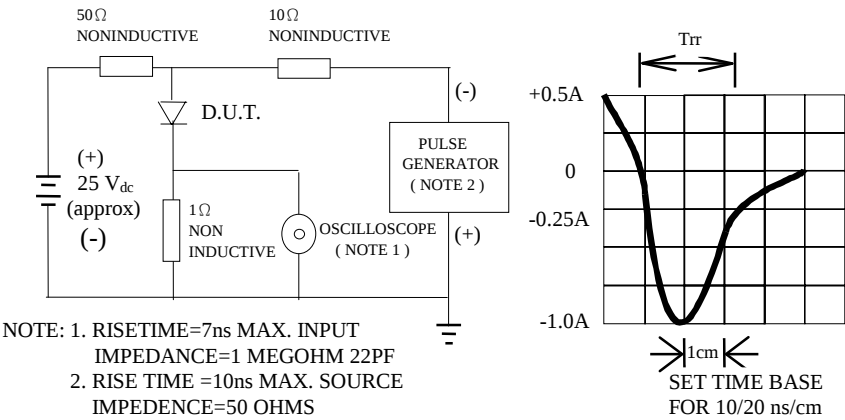


FIG. 2-TYPICAL FORWARD CURRENT DERATING CURVE

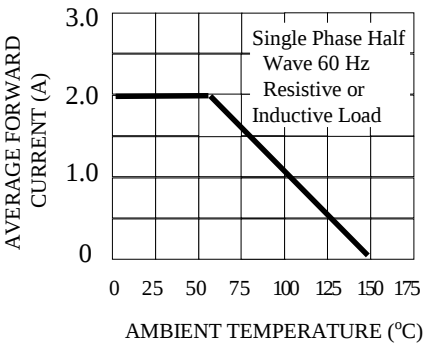


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

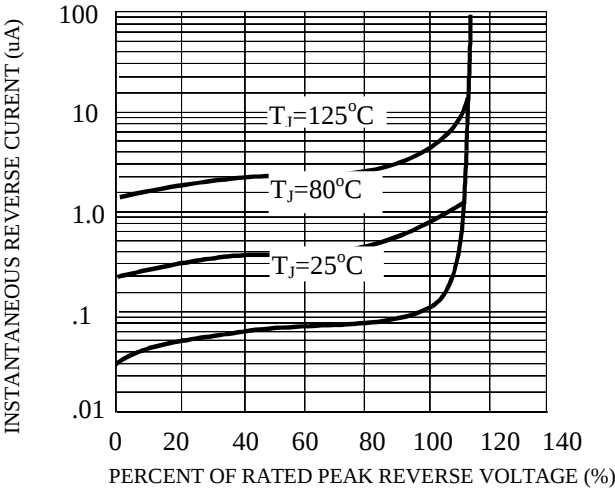


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

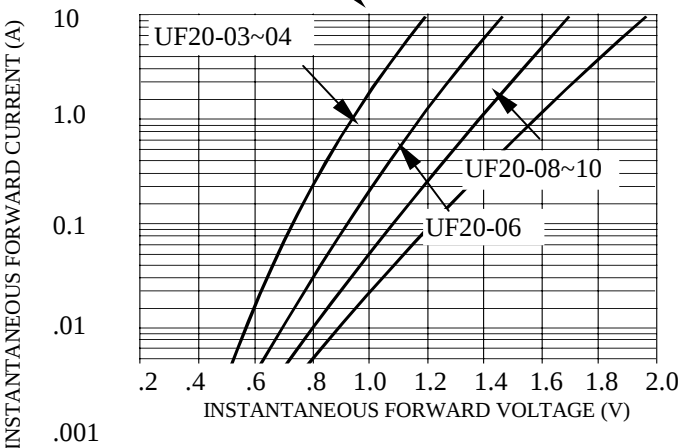


FIG. 5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

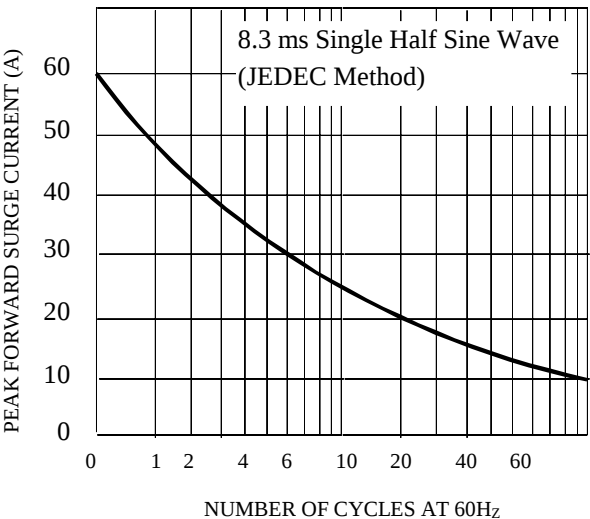


FIG. 6-TYPICAL JUNCTION CAPACITANCE

