

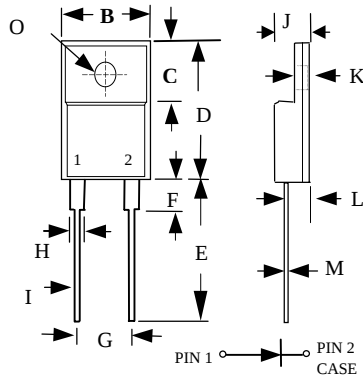


FRONTIER
ELECTRONICS CO., LTD.

UF80-005 THRU UF80-06
AND
UFF80-005 THRU UFF80-06

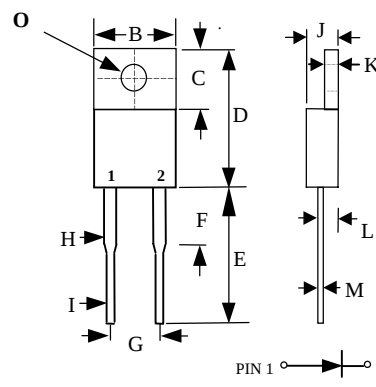
8A ULTRA FAST RECOVERY RECTIFIER

CASE : ITO-220AC (UFF80-xx) , FULLY INSULATED PACKAGE



	MILLIMETERS	
	MIN	MAX
B	9.72	10.27
C	6.30	6.90
D	14.50	15.50
E	13.00	13.80
F	-	4.1
G	4.95	5.20
H	-	1.52
I	-	0.9
J	-	4.8
K	-	3.1
L	2.5	2.9
M	-	0.8
O	Ø 3.4	

CASE : TO-220AC (UF80-xx)



	MILLIMETERS	
	MIN	MAX
B	9.8	10.2
C	6.3	6.9
D	14.8	15.4
E	13.0	13.8
F	-	3.5
G	4.95	5.20
H	-	1.80
I	-	0.9
J	-	4.8
K	-	3.1
L	2.5	2.9
M	-	0.8
O	Ø 3.4	

FEATURES

- ULTRA FAST RECOVERY TIME
- LOW FORWARD VOLTAGE
- LOW THERMAL RESISTANCE
- HIGH CURRENT CAPABILITY
- HIGH VOLTAGE
- GLASS PASSIVATED CHIP JUNCTION

MECHANICAL DATA

- CASE : TRANSFER MOLDED
- TERMINAL : MIL-STD-202F METHOD 2026
- POLARITY : AS MARKED
- EPOXY : UL94V-0 FLAME RETARDANT MOLDING COMPOUND
- MOUNTING POSITION : ANY
- WEIGHT : 1.81 GRAMS

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	FES 8AT	FES 8BT	FES 8CT	FES 8DT	FES 8FT	FES 8GT	FES 8HT	FES 8JT	UNIT S
		UF80 -005	UF80 -01	UF80 -015	UF80 -02	UF80 -03	UF80 -04	UF80 -05	UF80 -06	
		UFF80 -005	UFF80 -01	UFF80 -015	UFF80 -02	UFF80 -03	UFF80 -04	UFF80 -05	UFF80 -06	
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	50	100	150	200	300	400	500	600	V
MAXIMUM RMS VOLTAGE	V_{RMS}	35	70	105	140	210	280	350	420	V
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	50	100	150	200	300	400	500	600	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1	I_O	8.0								A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	125								A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	85						60		PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta jc}$	2.2								°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)

MAXIMUM FORWARD VOLTAGE AT I _O DC	V _F	0.975	1.3	1.5	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}	35	50		nS

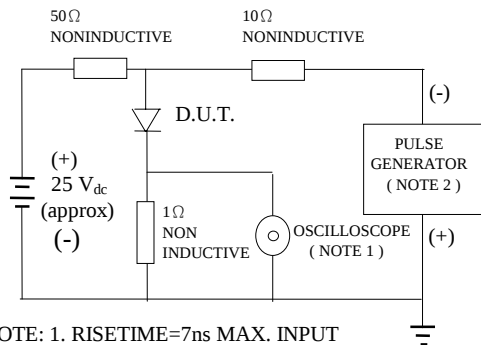
NOTES : 1.MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

2.THERMAL RESISTANCE JUNCTION TO CASE PER LEG MOUNTED ON HEATSINK

3.REVERSE RECOVERY TEST CONDITIONS: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$

RATINGS AND CHARACTERISTIC CURVE UF(F)80-005 THRU UF(F)80-06

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



NOTE: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1 MEGOHM 22PF
2. RISE TIME =10 ns MAX. SOURCE IMPEDENCE=50 OHMS

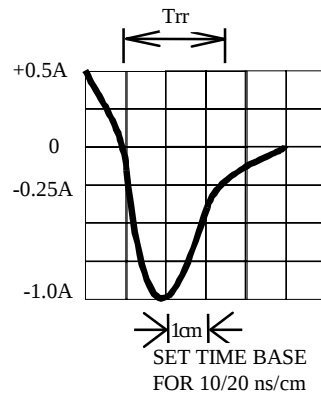


FIG. 2 -MAXIMUM FORWARD CURRENT DERATING CURVE

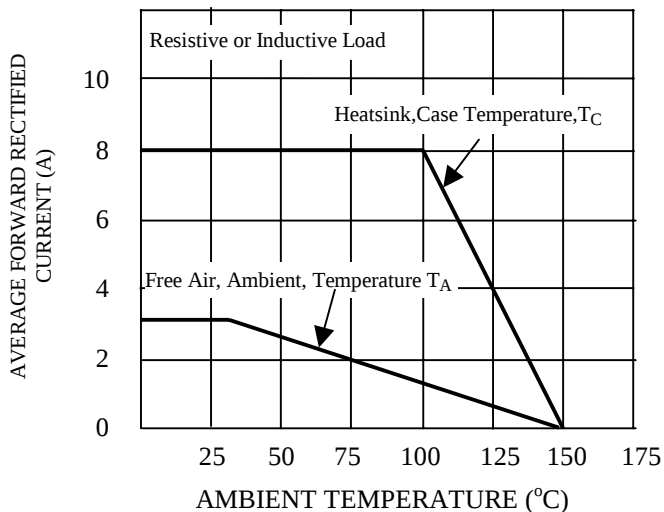


FIG. 3 -TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

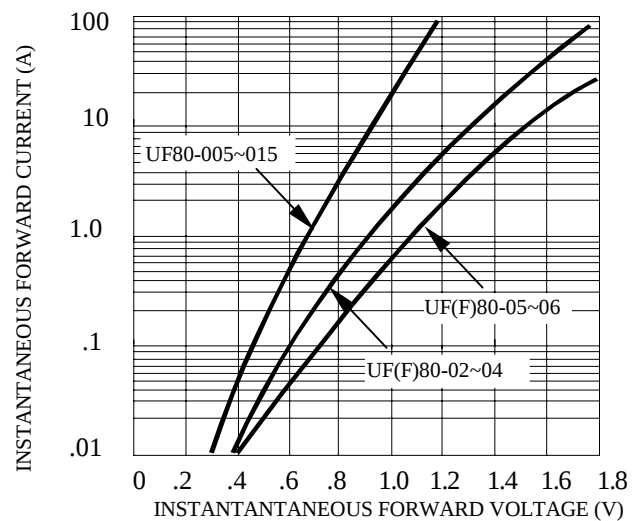


FIG. 4 -TYPICAL REVERSE CHARACTERISTICS

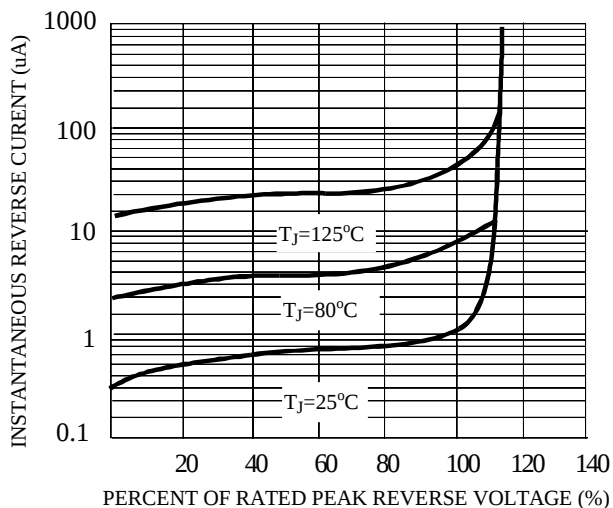


FIG. 5 -TYPICAL JUNCTION CAPACITANCE

