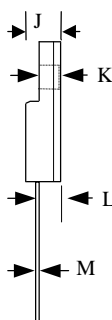
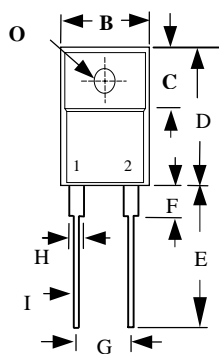


# Formosa MS

## UFF200-005 THRU UFF200-06

### 20A ULTRA FAST RECOVERY RECTIFIER

CASE : ITO-220AC( UFF200-xx ), FULLY INSULATED PACKAGE



PIN 1 ← → PIN 2  
CASE

	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

#### 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 208
- POLARITY : AS MARKED
- EPOXY : UL94V-0 FLAME RETARDANT MOLDING COMPOUND
- 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	UFF200-005	UFF200-01	UFF200-02	UFF200-03	UFF200-04	UFF200-05	UFF200-06	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 SEE FIG.1	$I_O$	20.0							A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	250							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	$C_J$	65							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

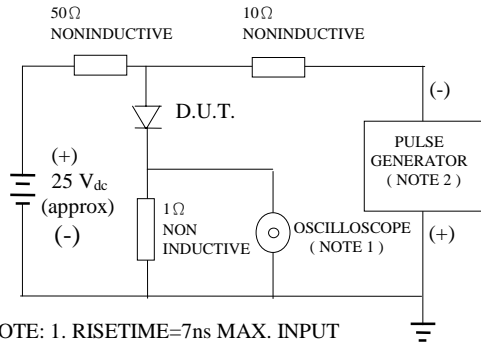
#### ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	UFF200-005	UFF200-01	UFF200-02	UFF200-03	UFF200-04	UFF200-05	UFF200-06	UNITS	
MAXIMUM FORWARD VOLTAGE AT $I_O$ DC	$V_F$	1.00		1.30		1.50			V	
MAXIMUM DC REVERSE CURRENT AT $T_A = 25^\circ\text{C}$	$I_R$	10							$\mu\text{A}$	
MAXIMUM DC REVERSE CURRENT AT $T_A = 100^\circ\text{C}$	$I_R$	100							$\mu\text{A}$	
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	$T_{RR}$	35			50					nS

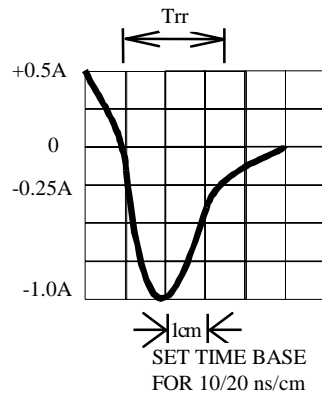
- NOTES : 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS  
2. THERMAL RESISTANCE JUNCTION TO CASE PER LEG MOUNTED ON HEATSINK  
3. REVERSE RECOVERY TEST CONDITIONS:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$

# RATINGS AND CHARACTERISTIC CURVE UFF200-005 THRU UFF200-06

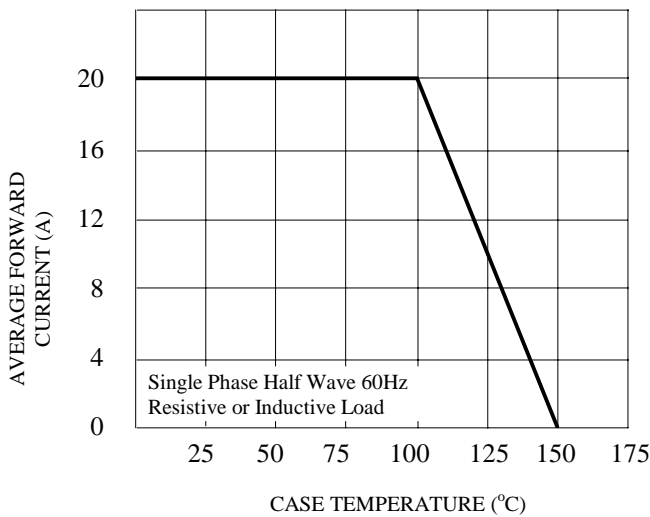
**FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**



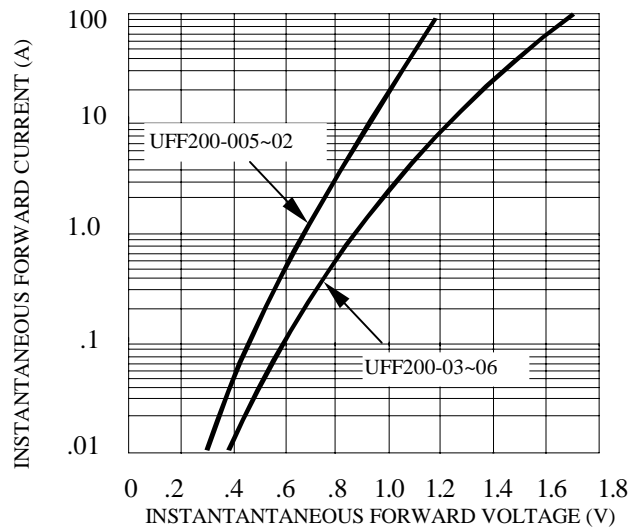
NOTE: 1. RISE TIME = 7 ns MAX. INPUT IMPEDANCE = 1 MEGOHM 22PF  
2. RISE TIME = 10 ns MAX. SOURCE IMPEDANCE = 50 OHMS



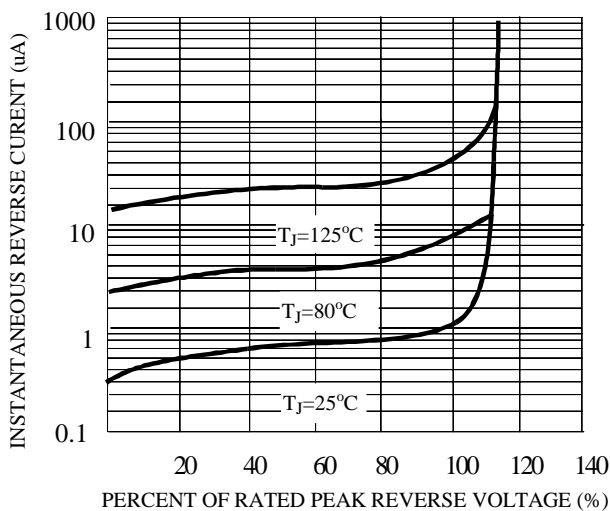
**FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE**



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

