

# DATA SHEET

## UFF80-005 SERIES

ULTRA FAST RECOVERY RECTIFIER

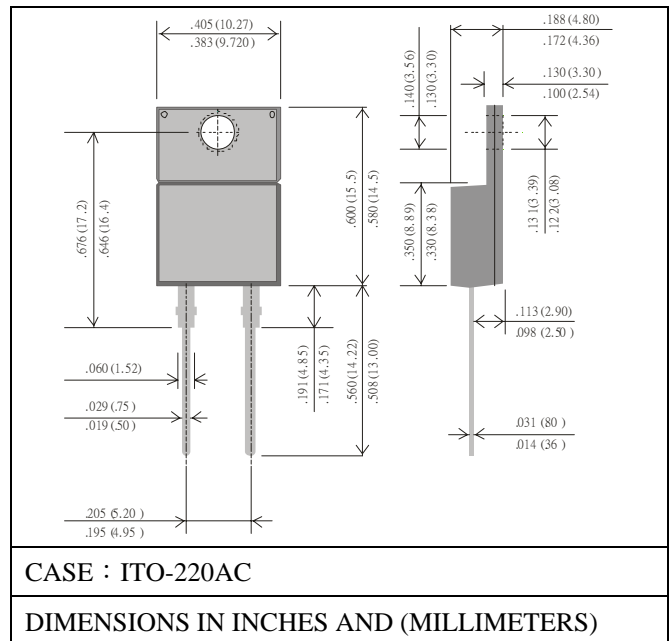
**VOLTAGE** 50~600 Volts **CURRENT** 8.0 Ampere

### 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.

PARAMETER	SYMBOL	UFF80	UFF80	UFF80	UFF80	UFF80	UFF80	UNIT
		-005	-01	-02	-04	-05	-06	
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	50	100	200	400	500	600	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	35	70	140	280	350	420	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	50	100	200	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 THERMAL RESISTANCE (NOTE 2)	$R_{\theta JC}$	3.5						°C/W
STORAGE TEMPERATURE RANGE	$T_{STG}$	-55 TO + 150						°C
OPERATING TEMPERATURE RANGE	$T_J$	-55 TO + 150						°C

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

PARAMETER	SYMBOL	UFF80	UFF80	UFF80	UFF80	UFF80	UFF80	UNIT
		-005	-01	-02	-04	-05	-06	
MAXIMUM FORWARD VOLTAGE AT 8A	$V_F$	0.95			1.30	1.50		V
MAXIMUM DC REVERSE CURRENT	$I_R$	10						$\mu A$
		100						
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	$C_J$	85				60		pF
MAXIMUM REVERSE RECOVERY TIME(NOTE 3)	$T_{RR}$	35		50				nS

- NOTE: 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:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

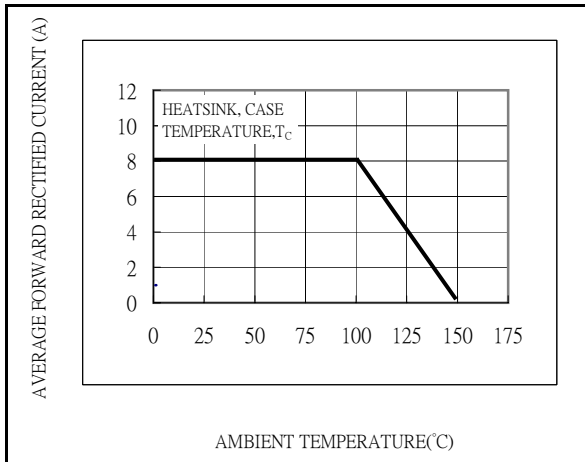


Fig.1-MAXIMUM FORWARD CURRENT DERATING CURVE

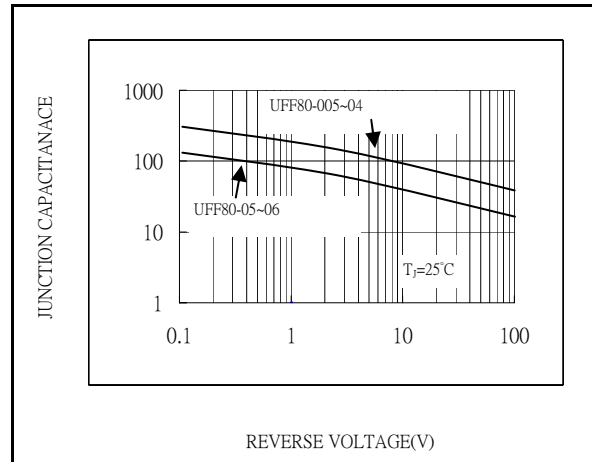


Fig.2-TYPICAL JUNCTION CAPACITANCE

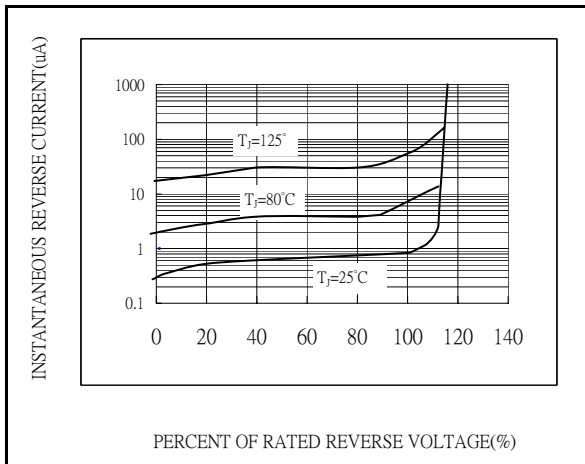


Fig.3-TYPICAL REVERSE CHARACTERISTICS

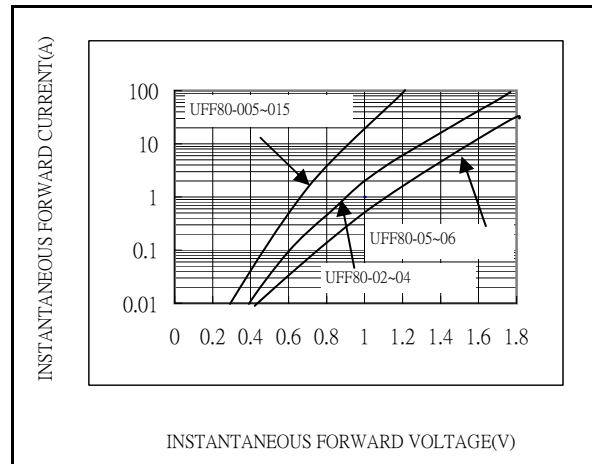


Fig.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS