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20A ULTRA FAST RECOVERY RECTIFIER

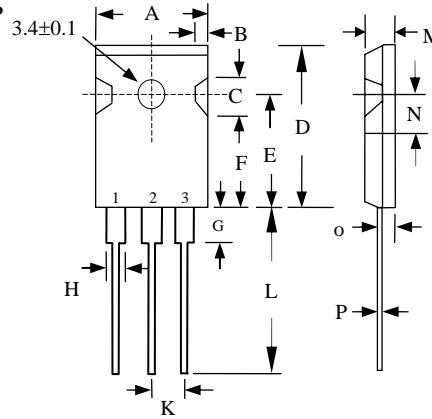
UF200-005 THRU UF200-06

FEATURES

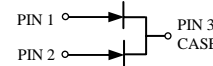
- DUAL RECTIFIER CONSTRUCTION, POSITIVE CENTER TAP
- PLASTIC PACKAGE HAS UNDERWRITERS LABORATORY FLAMMABILITY CLASSIFICATION 94V-0
- GLASS PASSIVATED CHIP JUNCTIONS
- SUPER FAST RECOVERY TIMES, HIGH VOLTAGE
- LOW FORWARD VOLTAGE, HIGH CURRENT CAPABILITY
- LOW THERMAL RESISTANCE
- LOW POWER LOSS, HIGH EFFICIENCY
- HIGH TEMPERATURE SOLDERING GUARANTEED: 260°C / 0.17" (4.3mm) FROM CASE FOR 10 SECONDS

MECHANICAL DATA

- CASE: JEDEC TO-3P MOLDED PLASTIC, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: PLATED LEAD SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: AS MARKED
- MOUNTING POSITION: ANY
- WEIGHT: 6.4 GRAMS



	MILLIMETERS	
	MIN	MAX
A	-	16.2
B	1.7	2.7
C	5.0	6.0
D	-	22.0
E	14.8	15.2
F	11.7	12.7
G	-	4.5
H	-	2.5
I	-	3.5
J	1.1	1.4
K	5.25	5.65
L	19.0	-
M	4.7	5.3
N	2.8	3.2
O	2.4	2.8
P	0.45	0.85



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	UF200-005	UF200-01	UF200-015	UF200-02	UF200-03	UF200-04	UF200-05	UF200-06	UNITS
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	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)	$R_{\theta jC}$	2.0								°C/W
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 150								°C
OPERATING TEMPERATURE RANGE	T_{OP}	- 55 TO + 150								°C

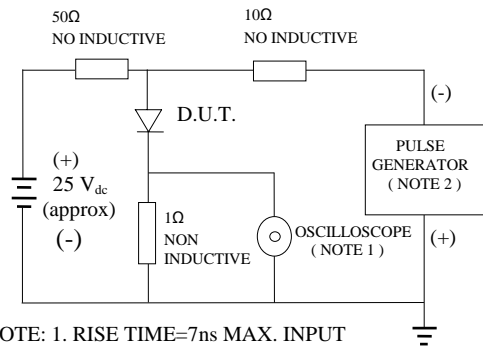
ELECTRICAL CHARACTERISTICS ($A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	UF200-005	UF200-01	UF200-015	UF200-02	UF200-03	UF200-04	UF200-05	UF200-06	UNITS	
MAXIMUM FORWARD VOLTAGE AT 10A PER LEG	V_F	1.0			1.3		1.5			V	
MAXIMUM DC REVERSE CURRENT AT $T_A=25^\circ\text{C}$	I_R	10								μA	
MAXIMUM DC REVERSE CURRENT AT $T_A=100^\circ\text{C}$	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 HEAT SINK
 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 UF200-005 THRU UF200-06

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



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

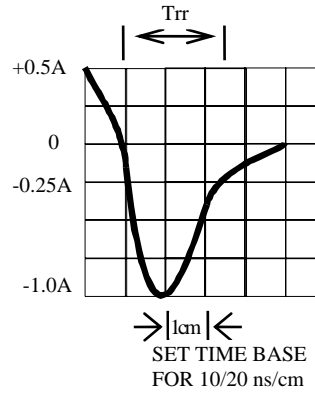


FIG. 2 -TYPICAL FORWARD CURRENT DERATING CURVE

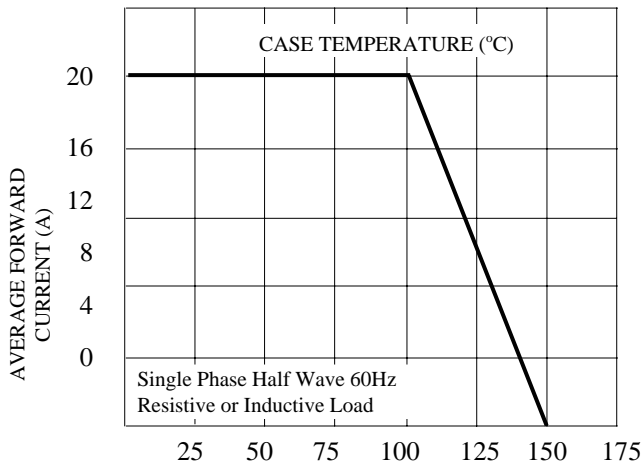


FIG. 3 -TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

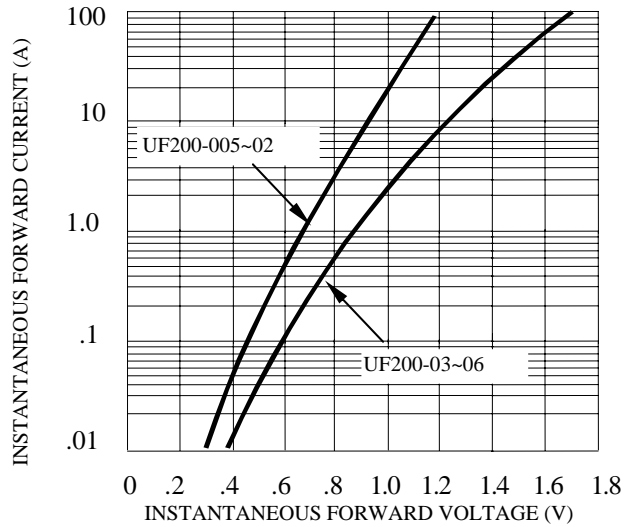


FIG. 4 -TYPICAL REVERSE CHARACTERISTICS

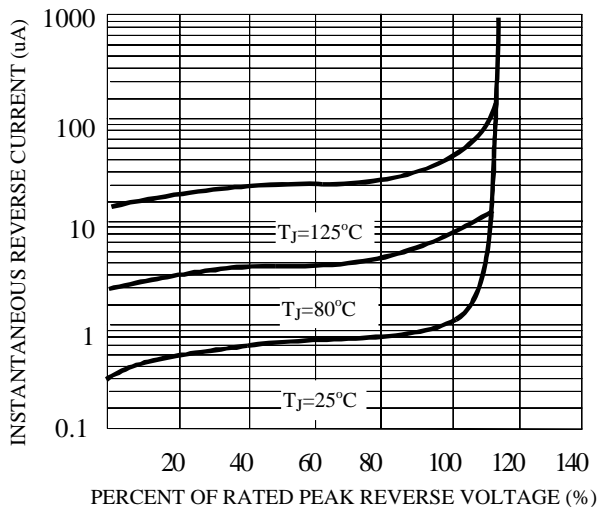


FIG. 5 -TYPICAL JUNCTION CAPACITANCE

