Frontier Electronics Corp.

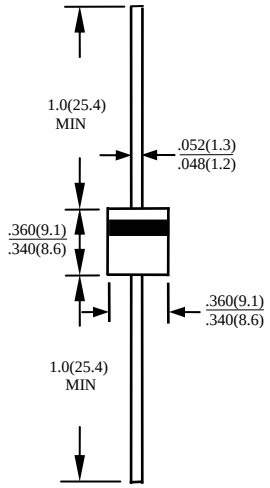
667 E. COCHRAN STREET, SIMI VALLEY, CA 93065
TEL: (805) 522-9998 FAX: (805) 522-9989
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6A ULTRA FAST RECOVERY RECTIFIER

UF60-005 THRU UF60-10

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/0.375" (9.5mm) LEAD LENGTHS FOR 10 SECONDS AT 5 LBS. (2.3 KG) TENSION.



MECHANICAL DATA

- CASE: P6, JEDEC DO-201AD, MOLDED PLASTIC DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: AXIAL LEADS SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: COLOR BAND DENOTES CATHODE END
- MOUNTING POSITION: ANY
- WEIGHT: 2.1 GRAM

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	UF60-005	UF60-01	UF60-02	UF60-04	UF60-06	UF60-08	UF60-10	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 0.375"(9.5mm) LEAD LENGTH AT TA=50°C	I_O	6.0							A
PEAK FORWARD SURGE CURRENT 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	300							A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C_J	150							PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	$R_{\theta ja}$	10							℃/W
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150							℃
OPERATING TEMPERATURE RANGE	T_{OP}	-55 TO + 150							℃

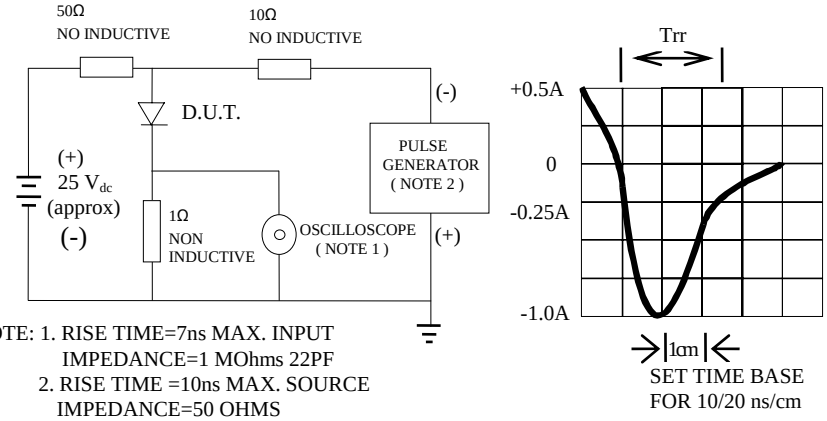
ELECTRICAL CHARACTERISTICS (AT TA =25°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	UF60-005	UF60-01	UF60-02	UF60-04	UF60-06	UF60-08	UF60-10	UNITS
MAXIMUM FORWARD VOLTAGE AT Io DC	V_F	1.3			1.4	1.7	2.0		V
MAXIMUM REVERSE CURRENT AT TA=25°	I_R	25							μA
MAXIMUM REVERSE CURRENT AT TA=100°	I_R	250							μA
MAXIMUM REVERSE RECOVERY TIME (NOTE3)	T_{RR}	50				75			nS

NOTE: 1. MEASURED AT 1 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. BOTH LEADS ATTACHED TO HEAT SINK 70x70x1t(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 UF60-005 THRU UF60-10

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



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

FIG. 2 -TYPICAL FORWARD CURRENT DERATING CURVE

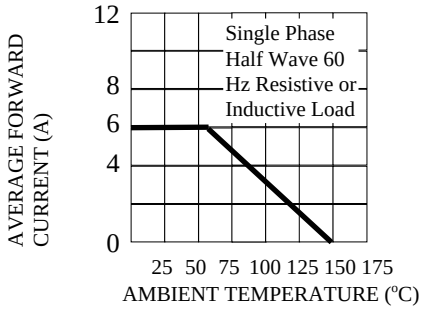


FIG. 3 -TYPICAL REVERSE CHARACTERISTICS

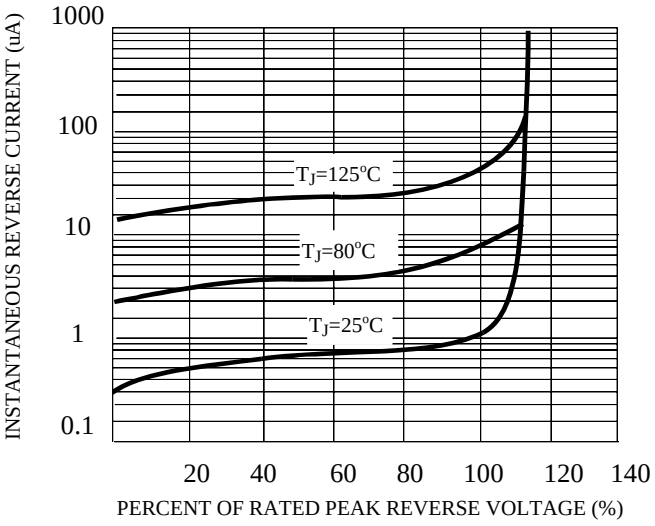


FIG. 4 -TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

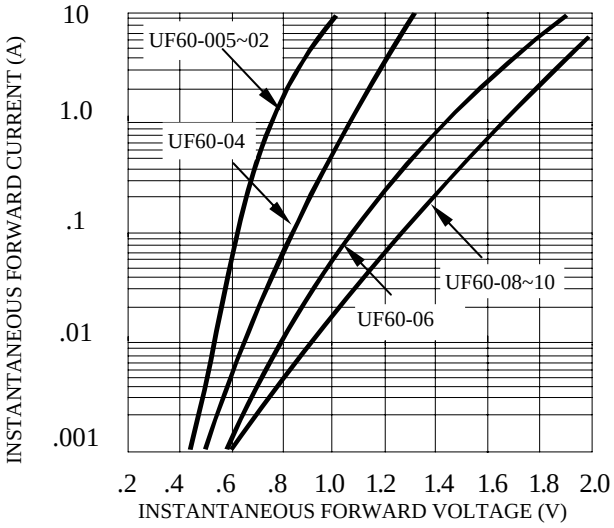


FIG. 5 -MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

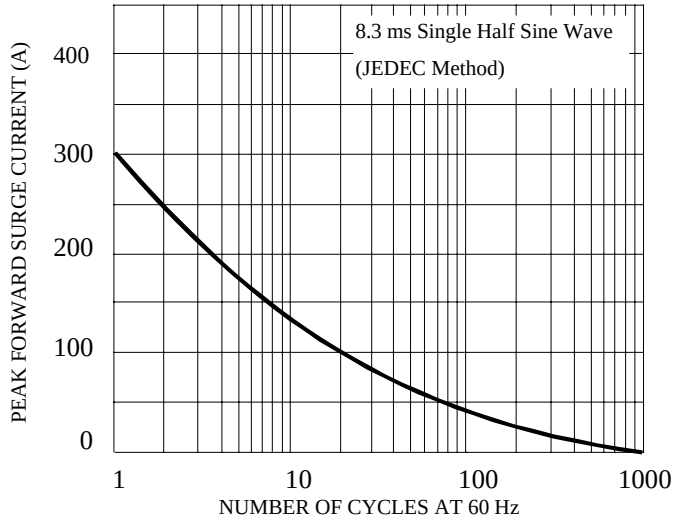


FIG. 6 -TYPICAL JUNCTION CAPACITANCE

