



Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

TEL: (805) 522-9998 FAX: (805) 522-9989

E-mail: frontiersales@frontierusa.com

Web: <http://www.frontierusa.com>

3A GLASS PASSIVATED ULTRA FAST RECOVERY RECTIFIER

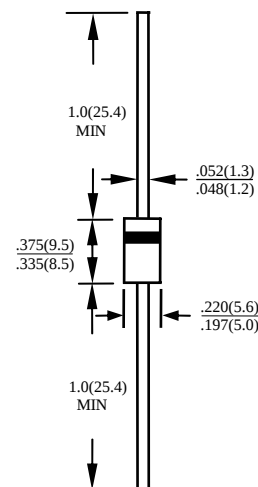
FUF5400 THRU FUF5408

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.375" (9.5mm) LEAD LENGTHS FOR 10 SECONDS AT 5 LBS. (2.3 KG) TENSION.
- GLASS PASSIVATED JUNCTION

MECHANICAL DATA

- CASE: 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: 1.2 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	FUF 5400	FUF 5401	FUF 5402	FUF 5403	FUF 5404	FUF 5406	FUF 5407	FUF 5408	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V _{RRM}	50	100	200	300	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V _{RMS}	35	70	140	210	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V _{DC}	50	100	200	300	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT 0.375"(9.5mm) LEAD LENGTH AT TA=55°C	I _O	3.0								A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	I _{FSM}	150								A
TYPICAL JUNCTION CAPACITANCE (NOTE 1)	C _J	75					50			PF
TYPICAL THERMAL RESISTANCE (NOTE 2)	R _{θjc}	20								°C/W
STORAGE TEMPERATURE RANGE	T _{STG}	- 55 TO + 150								°C
OPERATING TEMPERATURE RANGE	T _{OP}	- 55 TO + 150								°C

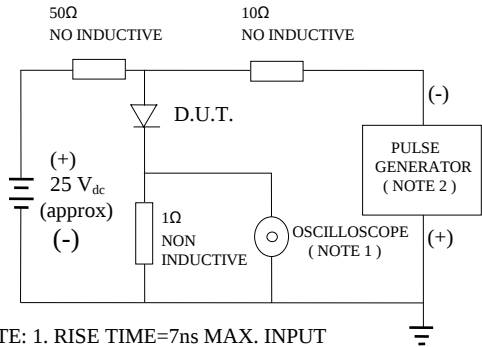
ELECTRICAL CHARACTERISTICS ($A_T T_A = 25^{\circ}\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	FUF 5400	FUF 5401	FUF 5402	FUF 5403	FUF 5404	FUF 5406	FUF 5407	FUF 5408	UNITS
MAXIMUM FORWARD VOLTAGE AT I _O DC	V _F	1.3					1.7			V
MAXIMUM DC REVERSE CURRENT AT T _A =25°C	I _R	5								μA
MAXIMUM DC REVERSE CURRENT AT T _A =100°C	I _R	50								μA
MAXIMUM REVERSE RECOVERY TIME (NOTE 3)	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 20x20x1t(mm) COPPER PLATE AT LEAD LENGTH 5mm
 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 FUF5400 THRU FUF5408

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

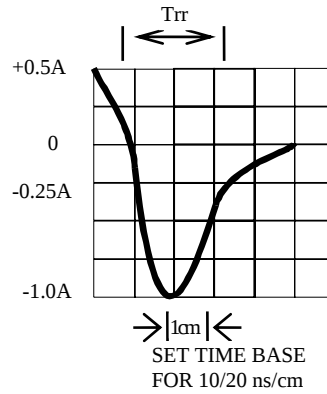


FIG. 2 -TYPICAL FORWARD CURRENT DERATING CURVE

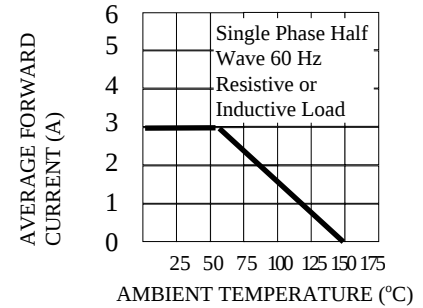


FIG. 4 -TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

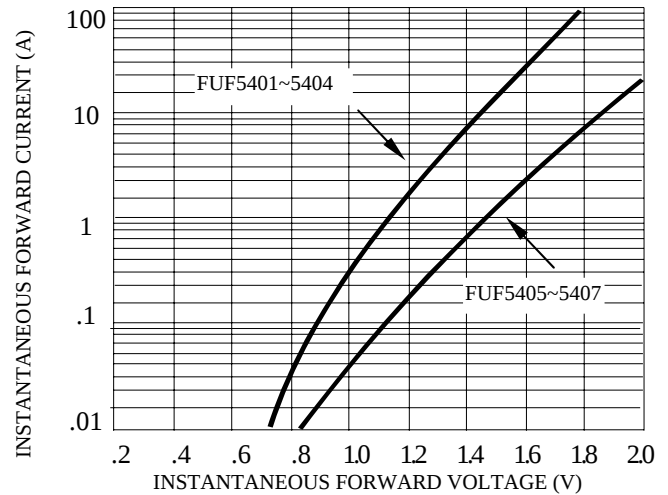


FIG. 3 -TYPICAL REVERSE CHARACTERISTICS

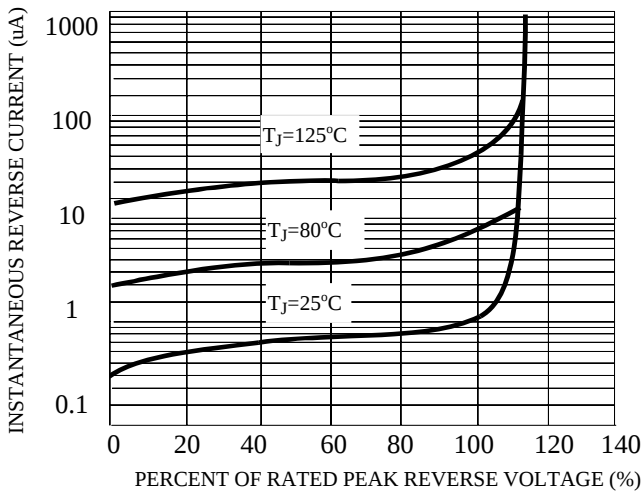


FIG. 5 -MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

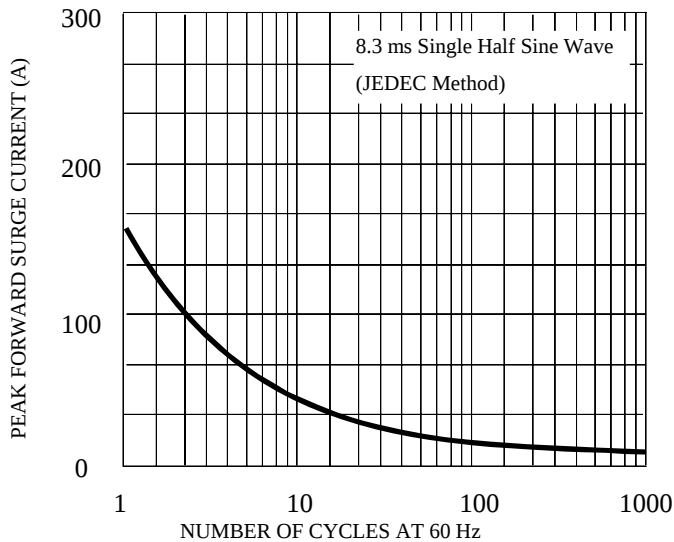


FIG. 6 -TYPICAL JUNCTION CAPACITANCE

