



# Frontier Electronics Corp.

667 E. COCHRAN STREET, SIMI VALLEY, CA 93065

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

E-mail: [frontiersales@frontierusa.com](mailto:frontiersales@frontierusa.com)

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

## 6A SILICON SINGLE-PHASE BRIDGE RECTIFIERS

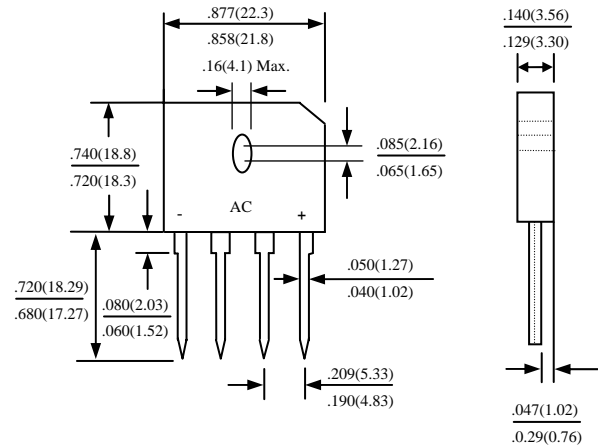
### GBU6-005-LFR THRU GBU6-10-LFR

#### FEATURES

- PLASTIC MATERIAL HAS UNDERWRITERS LABORATORY FLAMMABILITY CLASSIFICATION 94V-0
- IDEAL FOR PRINTED CIRCUIT BOARD
- HIGH TEMPERATURE SOLDERING GUARANTEED: 260°C /10S  
0.375" (9.5mm) LEAD LENGTH AT 5 LBS (2.3KG) TENSION
- GLASS PASSIVATED CHIP JUNCTION
- ROHS

#### MECHANICAL DATA

- CASE: MOLDED PLASTIC, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: LEADS SOLDERABLE PER MIL-STD-202, METHOD 208
- MOUNTING TORQUE: 5 IN-LB MAX
- MOUNTING POSITION: ANY
- WEIGHT: 4.0 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	GBU6 -005-LFR	GBU6 -01-LFR	GBU6 -02-LFR	GBU6 -04-LFR	GBU6 -06-LFR	GBU6 -08-LFR	GBU6 -10-LFR	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 OUTPUT CURRENT ( SEE FIG.1 )	$I_O$	6.0							A
PEAK FORWARD SURGE CURRENT SINGLE SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	150							A
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	GBU6 -005-LFR	GBU6 -01-LFR	GBU6 -02-LFR	GBU6 -04-LFR	GBU6 -06-LFR	GBU6 -08-LFR	GBU6 -10-LFR	UNITS
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE DROP PER ELEMENT AT 3A	$V_F$	1.0							V
MAXIMUM REVERSE LEAKAGE AT RATE DC BLOCKING VOLTAGE PER ELEMENT $T_A = 25^\circ\text{C}$ , $T_C = 100^\circ\text{C}$	$I_R$	5							$\mu\text{A}$

# RATINGS AND CHARACTERISTIC CURVES GBU6-005-LFR THRU GBU6-10-LFR

FIG. 1 - DERATING CURVE OUTPUT RECTIFIED CURRENT

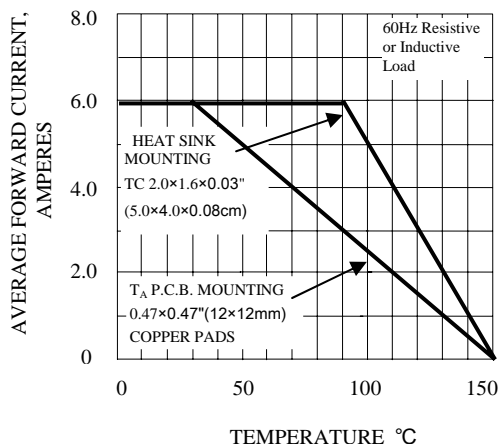


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

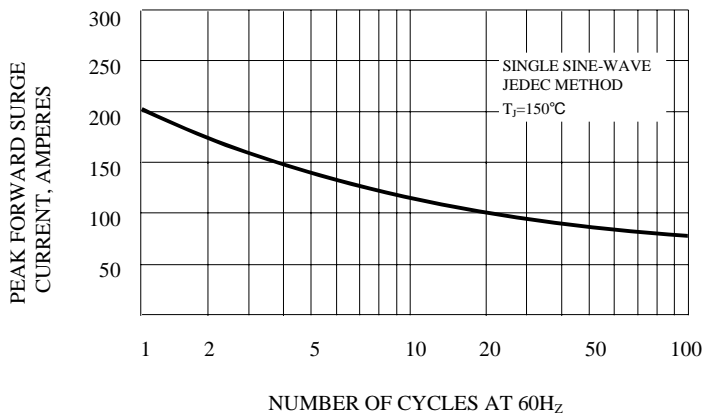


FIG. 3 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT

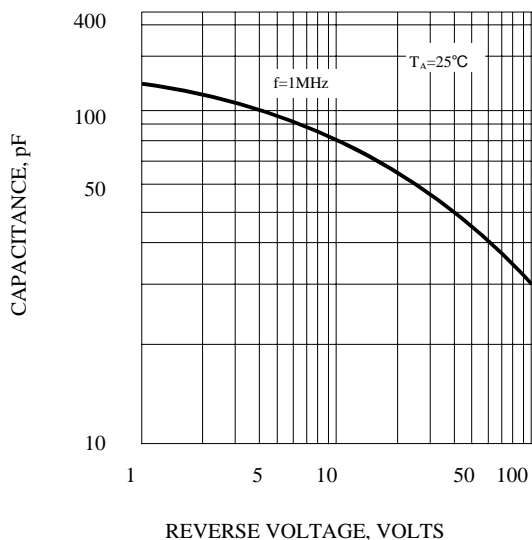


FIG. 4 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT

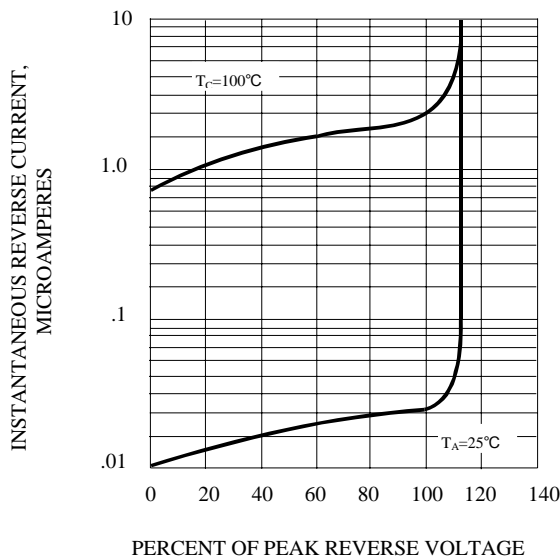


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

