



# Frontier Electronics Corp.

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## 6A SILICON SINGLE-PHASE BRIDGE RECTIFIERS

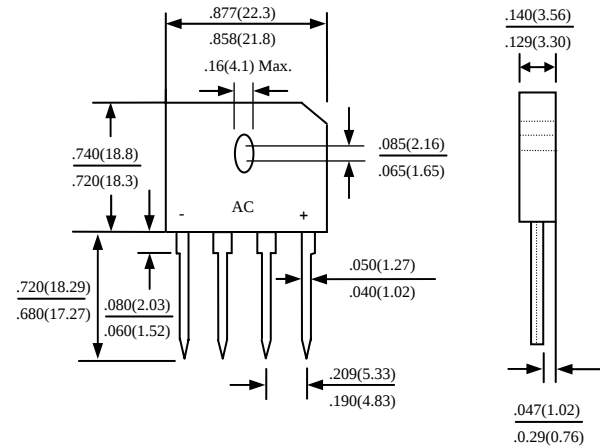
### GBU6-005-LFR THRU GBU6-10-LFR

#### 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<br>-005-LFR | GBU6<br>-01-LFR | GBU6<br>-02-LFR | GBU6<br>-04-LFR | GBU6<br>-06-LFR | GBU6<br>-08-LFR | GBU6<br>-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 ( $A_T T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

| CHARACTERISTICS                                                                                                      | SYMBOL | GBU6<br>-005-LFR | GBU6<br>-01-LFR | GBU6<br>-02-LFR | GBU6<br>-04-LFR | GBU6<br>-06-LFR | GBU6<br>-08-LFR | GBU6<br>-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

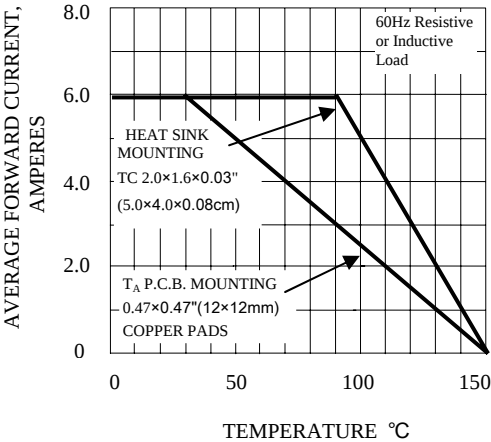


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

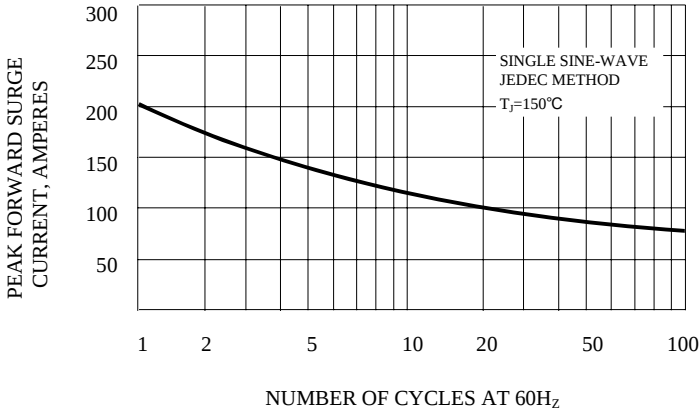


FIG. 3 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT

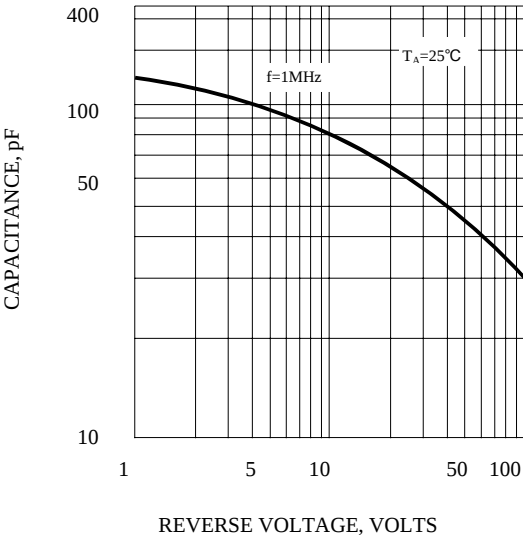


FIG. 4 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT

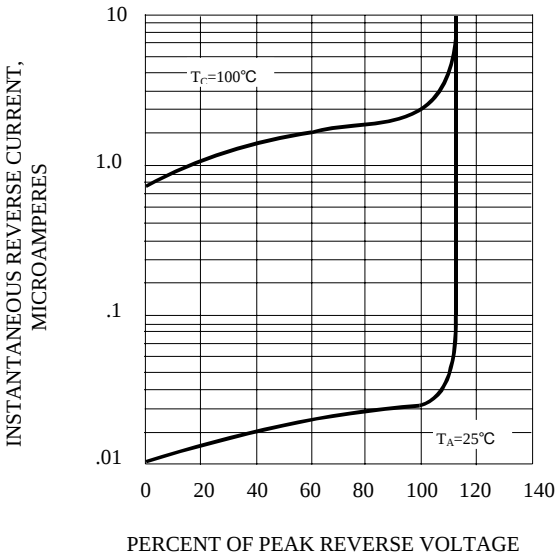


FIG. 5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER ELEMENT

