



# 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 SINGLE PHASE SILICON BRIDGE RECTIFIER

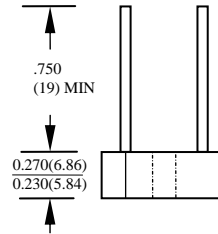
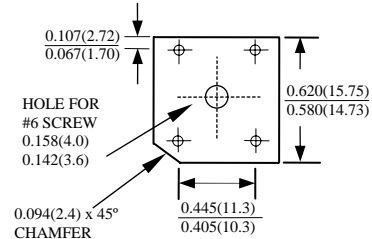
### BP6-005 THRU BP6-10

#### FEATURES

- PLASTIC MATERIAL USED CARRIERS UNDERWRITERS LABORATORY FLAMMABILITY RECOGNITION 94V-0
- TYPICAL IR LESS THAN 1μA
- HIGH SURGE CURRENT CAPABILITY
- LOW FORWARD VOLTAGE DROP
- IDEAL FOR PRINTED CIRCUIT BOARD

#### MECHANICAL DATA

- CASE: VOID-FREE PLASTIC PACKAGE
- DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: LEADS, SOLDERABLE PER MIL-STD-202, METHOD 208
- MOUNTING POSITION: ANY
- WEIGHT: 5.5 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	BP6-005	BP6-01	BP6-02	BP6-04	BP6-06	BP6-08	BP6-10	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 OUTPUT CURRENT AT @ $T_A=40^\circ\text{C}$ (NOTE 1) @ $T_A=40^\circ\text{C}$ (NOTE 2)	$I_O$	6.0 3.0							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 + 125							°C

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

CHARACTERISTICS	SYMBOL	BP6-005	BP6-01	BP6-02	BP6-04	BP6-06	BP6-08	BP6-10	UNITS
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE DROP AT 3.0A	$V_F$	1.1							V
MAXIMUM REVERSE CURRENT AT RAT-ED DC BLOCKING VOLTAGE PER ELEMENT $T_A=25^\circ\text{C}$	$I_R$	10							μA

NOTE: 1. UNIT MOUNTED ON 4" x 4" x 0.06" THICK (100mm<sup>2</sup> x 1.5mm) COPPER PLATE

2. UNIT MOUNTED ON P.C. BOARD AT .375" (9.5mm) LEAD LENGTHS WITHOUT HEAT SINK

# RATINGS AND CHARACTERISTIC CURVES BP6-005 THRU BP6-10

FIG. 1 -BP6 SERIES DERATING CURVE  
OUTPUT RECTIFIED CURRENT

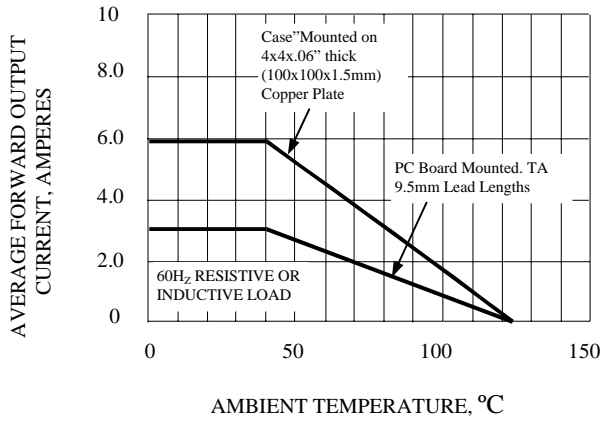


FIG. 2 - TYPICAL JUNCTION  
CAPACITANCE PER ELEMENT

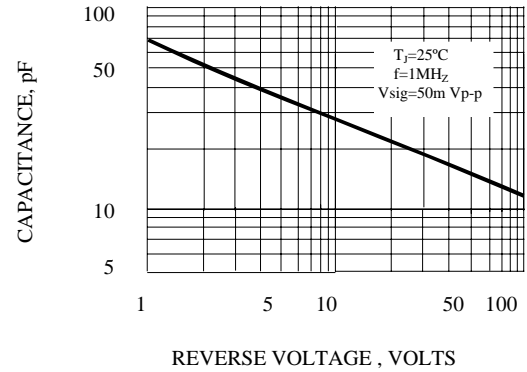


FIG. 3 - TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

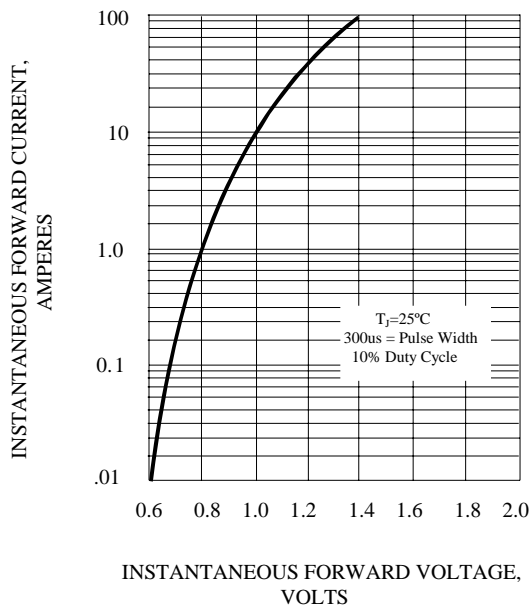


FIG. 4 - MAXIMUM NON-REPETITIVE  
PEAK FORWARD SURGE CURRENT

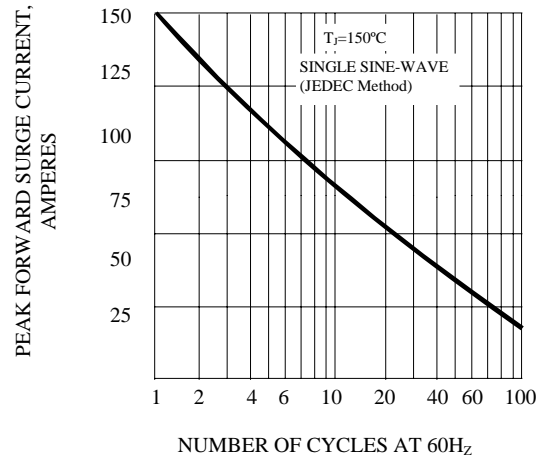


FIG. 5 - TYPICAL REVERSE  
CHARACTERISTICS

