



# 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>

## 3A BRIDGE RECTIFIER

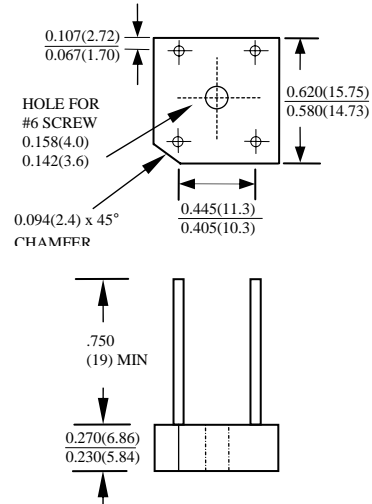
### BP3-005 THRU BP3-10

#### FEATURES

- PLASTIC MATERIAL USED CARRIERS UNDERWRITES LABORATORY FLAMMABILITY CLASSIFICATION 94V-0
- TYPICAL IR LESS THAN 1 $\mu$ A
- EXCEEDS ENVIRONMENTAL STANDARDS OF MIL-STD-19500
- HIGH TEMPERATURE SOLDERING GUARANTEED:  
260°C / 10S 0.375" (9.5mm) LEAD LENGTH / 5 LBS., (2.3KG) TENSION

#### MECHANICAL DATA

- CASE: VOID-FREE PLASTIC PACKAGE  
DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: AXIAL 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	BP3-005	BP3-01	BP3-02	BP3-04	BP3-06	BP3-08	BP3-10	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD TA=40°C (NOTE 1) RECTIFIED OUTPUT CURRENT TA=40°C (NOTE 2)	I <sub>O</sub>	3.0 2.0						A	
PEAK FORWARD SURGE CURRENT SINGLE SINE-WAVE SUPERIMPOSED ON RATED LOAD	I <sub>FSM</sub>	50						A	
TYPICAL JUNCTION CAPACITANCE PER ELEMENT (NOTE 3)	C <sub>J</sub>	20						PF	
STORAGE TEMPERATURE RANGE	T <sub>STG</sub>	- 55 TO + 150						°C	
OPERATING TEMPERATURE RANGE	T <sub>OP</sub>	- 55 TO + 125						°C	

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

CHARACTERISTICS	SYMBOL	BP3-005	BP3-01	BP3-02	BP3-04	BP3-06	BP3-08	BP3-10	UNITS
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE DROP PER ELEMENT AT 1.0A	V <sub>F</sub>	1.1						V	
MAXIMUM REVERSE LEAKAGE AT RATED TA=25° DC BLOCKING VOLTAGE PER ELEMENT TA=100°C	I <sub>R</sub>	10.0 50.0						$\mu$ A	

- NOTE: 1. UNIT MOUNTED ON 50mm<sup>2</sup> x 1.5t COPPER PLAT  
 2. UNIT MOUNTED ON P.C. BOARD WITH 9.5mm LEAD LENGTHS  
 3. MEASURED AT 1.0MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

# RATINGS AND CHARACTERISTIC CURVES BP3-005 THRU BP3-10

FIG. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

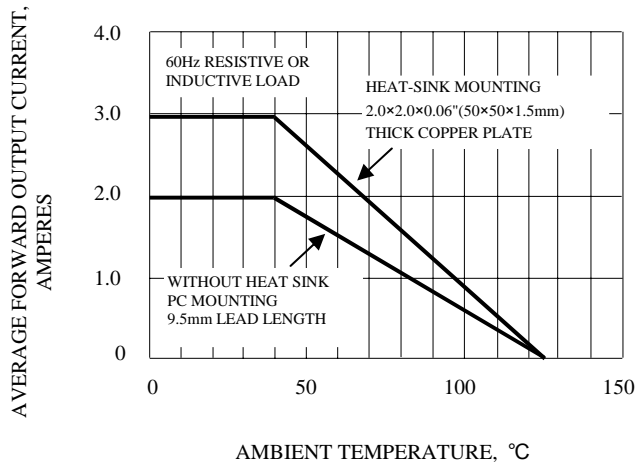


FIG. 2 - TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

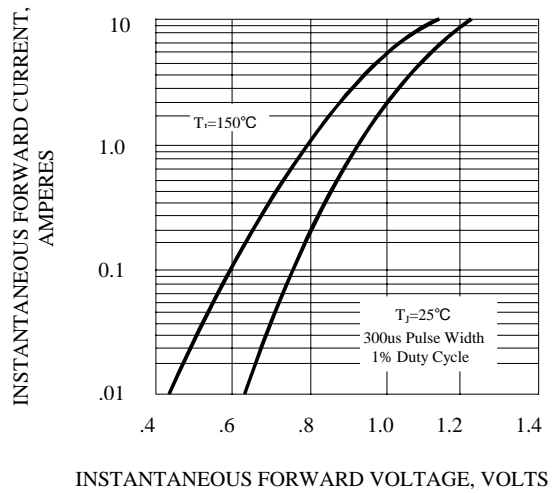


FIG. 3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

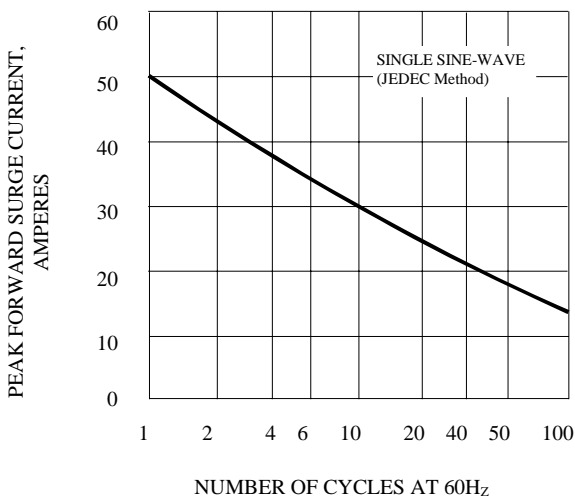


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

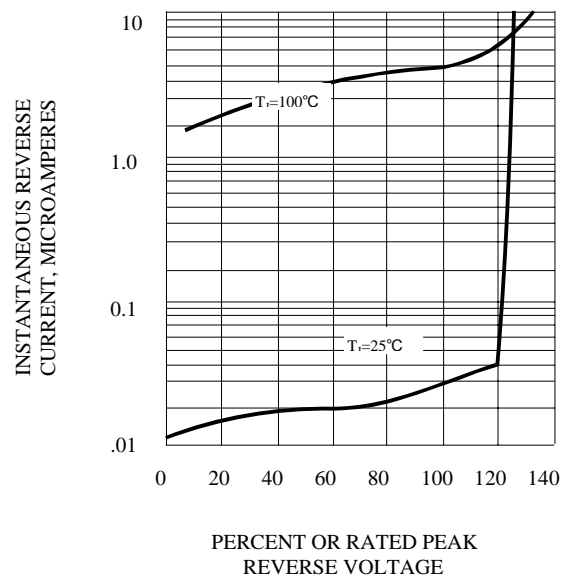


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER ELEMENT

