



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>

15A HIGH CURRENT SILICON BRIDGE RECTIFIERS

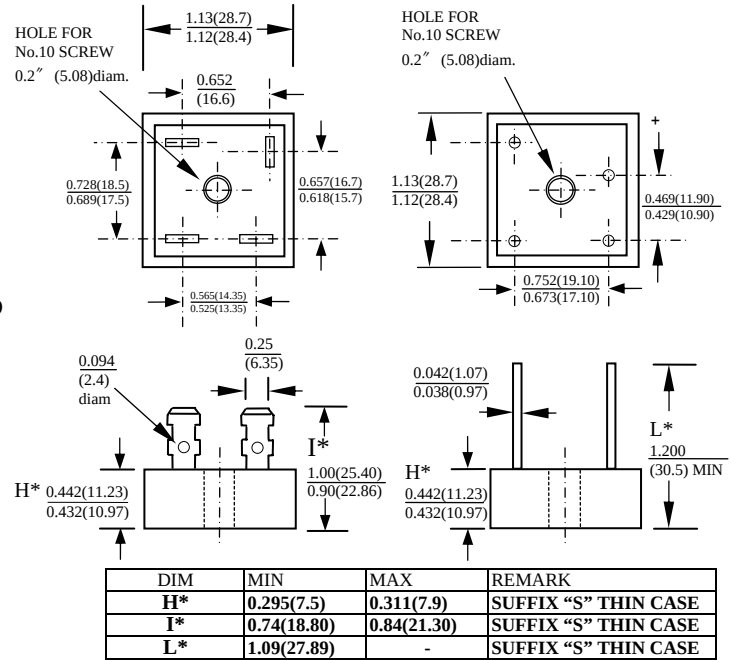
BP15-005 THRU BP15-10

FEATURES

- CURRENT RATING 15A
- REVERSE VOLTAGE RATING UP TO 1000V
- TYPICAL IR LESS THAN 1 μ A
- HIGH TEMPERATURE SOLDERING GUARANTEED:
260°C /10 SECOND

MECHANICAL DATA

- CASE: METAL HEAT SINK CASE, ELECTRICALLY INSULATED
- TERMINALS: UNIVERSAL .25" (6.3mm) FAST ON
- DIMENSIONS IN INCHES AND (MILLIMETERS)
- MOUNTING METHOD: BOLT DOWN ON HEAT SINK WITH SILICON THERMAL COMPOUND BETWEEN BRIDGE AND MOUNTING SURFACE FOR MAXIMUM HEAT TRANSFER EFFICIENCY
- WEIGHT: 20 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS, RATINGS AT 25°C AMBIENT TEMPERATURES UNLESS OTHERWISE SPECIFIED
SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	BP15-005	BP15-01	BP15-02	BP15-04	BP15-06	BP15-08	BP15-10	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 TC=55°C	I_O	15.0							A
PEAK FORWARD SURGE CURRENT SINGLE SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	300							A
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO + 175							°C
OPERATING TEMPERATURE RANGE	T_{OP}	- 55 TO + 175							°C

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

CHARACTERISTICS	SYMBOL	BP15-005	BP15-01	BP15-02	BP15-04	BP15-06	BP15-08	BP15-10	UNITS
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE PER BRIDGE ELEMENT AT SPECIFIED CURRENT	V_F	1.1							V
MAXIMUM REVERSE DC CURRENT AT RATED DC BLOCKING VOLTAGE PER ELEMENT	I_R	10							μA

NOTE: Suffix No. Versus Different Cases and Terminals

CASE	SUFFIX No	NORMAL METAL CASE	THIN METAL CASE	NORMAL PLASTIC CASE ALUMINUM BASE	THIN PLASTIC CASE ALUMINUM BASE
FAST ON TERMINALS		NO SUFFIX	S	P	PS
WIRE LEAD TERMINALS		W	WS	PW	PWS
IN LINE PIN CONFIGURATION		-	-	L	LS

RATINGS AND CHARACTERISTIC CURVES BP15-005 THRU BP15-10

FIG. 1 - MAXIMUM OUTPUT
RECTIFIED CURRENT

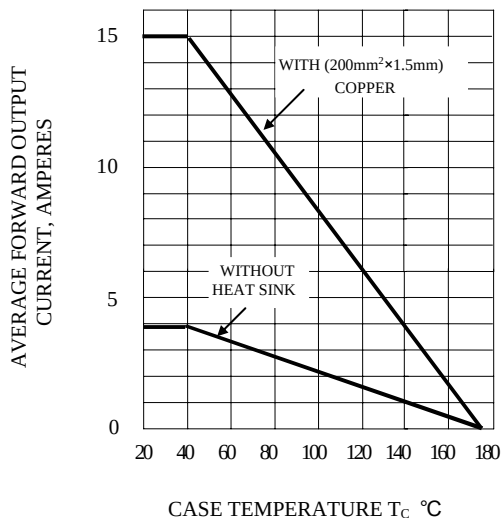


FIG. 4 - MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT

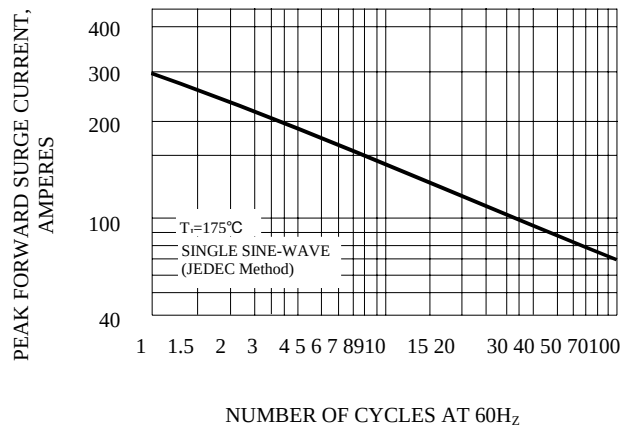


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS
AT $T_j = 25^\circ\text{C}$

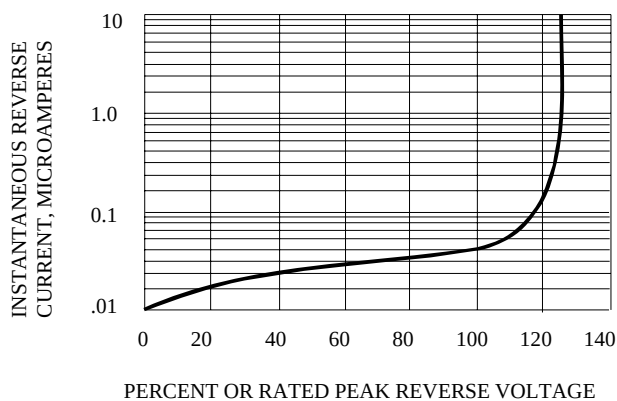


FIG. 5 - TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

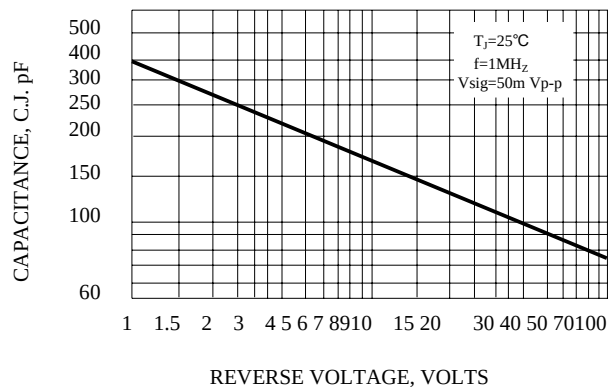
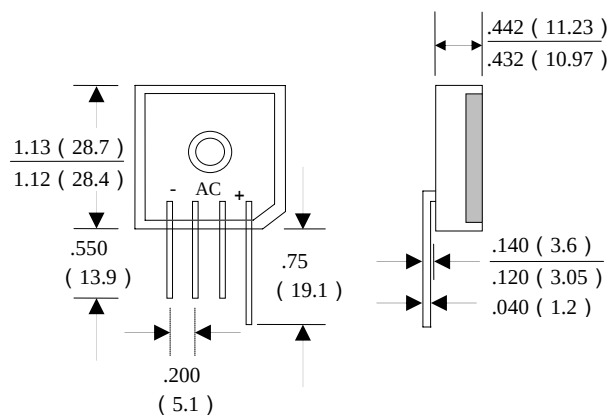
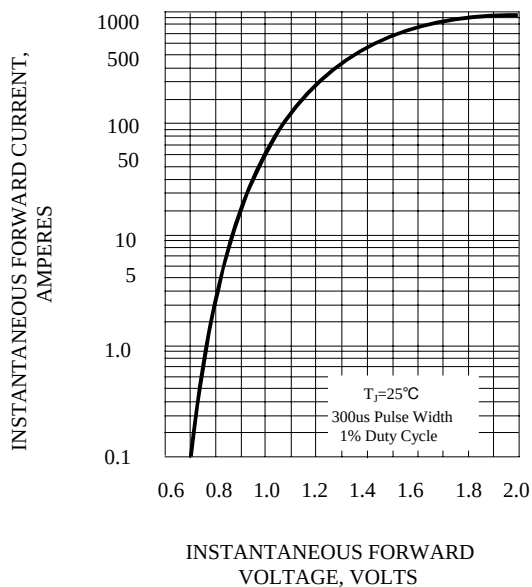


FIG. 3 - TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS



BP15-L IN LINE PIN CONFIGURATION
(PLASTIC CASE)