



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>

50A HIGH CURRENT BRIDGE RECTIFIERS

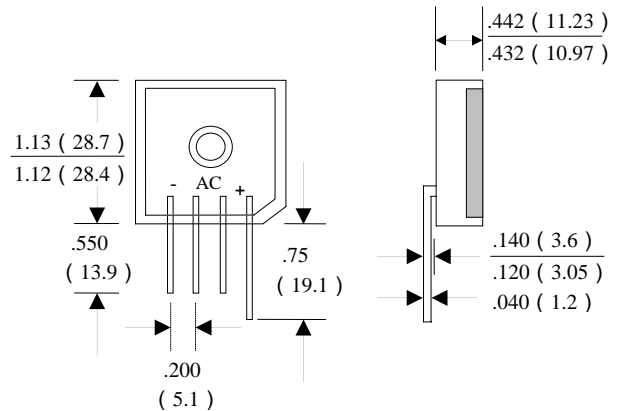
BP50-005L THRU BP50-10L

FEATURES

- CURRENT RATING 50A
- REVERSE VOLTAGE RATING UP TO 1000V
- TYPICAL IR LESS THAN 1 μ A
- HIGH TEMPERATURE SOLDERING :
260°C /10 SECOND

MECHANICAL DATA

- CASE: METAL HEAT SINK CASE, ELECTRICALLY INSULATED
DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: UNIVERSAL 0.25" (6.3mm) FAST ON
- 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 TEMPERATURE UNLESS OTHERWISE SPECIFIED SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	BP50-005L	BP50-01L	BP50-02L	BP50-04L	BP50-06L	BP50-08L	BP50-10L	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	50.0							A
PEAK FORWARD SURGE CURRENT SINGLE SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	600							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	BP50-005L	BP50-01L	BP50-02L	BP50-04L	BP50-06L	BP50-08L	BP50-10L	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							μ A

NOTE: SUFFIX NO. VERSUS DIFFERENT CASES AND TERMINALS

RATINGS AND CHARACTERISTIC CURVES BP50-005L THRU BP50-10L

FIG 1 MAXIMUM OUTPUT RECTIFIED CURRENT

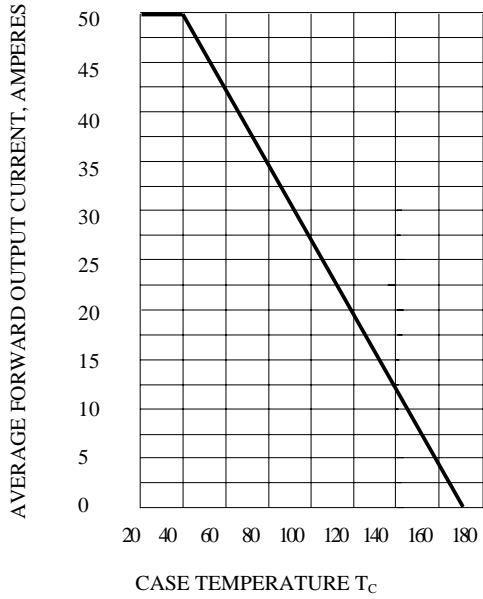


FIG 2 TYPICAL REVERSE CHARACTERISTICS AT $T_J=25^\circ\text{C}$

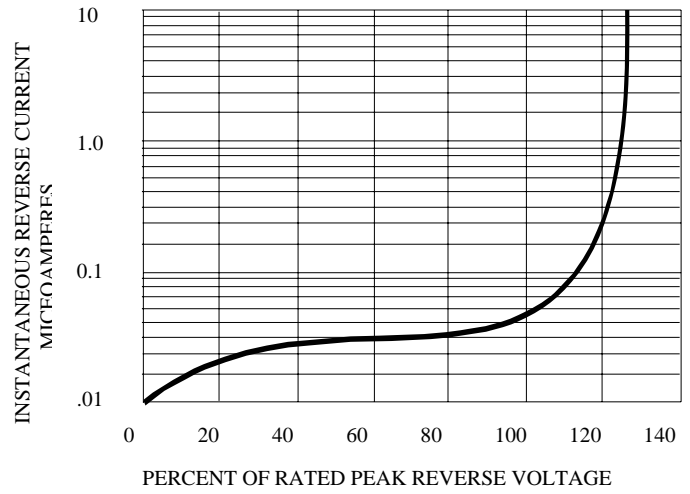


FIG 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

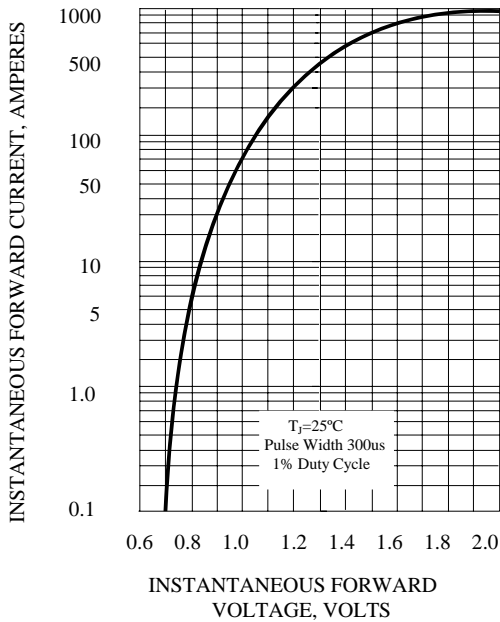


FIG 4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

