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40A HIGH CURRENT SILICON BRIDGE RECTIFIERS

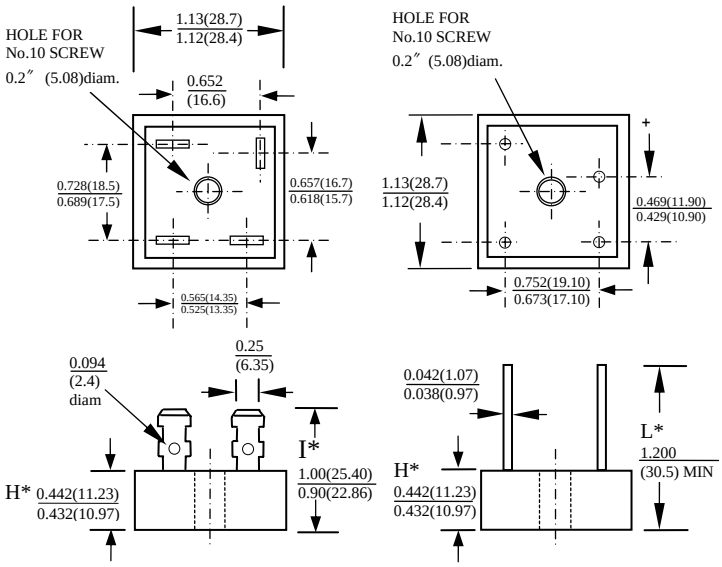
BP40-005G THRU BP40-10G

FEATURES

- GLASS PASSIVATED CHIP JUNCTION
- CURRENT RATING 40A
- REVERSE VOLTAGE RATING UP TO 1000V
- TYPICAL IR LESS THAN 1μA
- HIGH TEMPERATURE SOLDERING: 260°C /10 SECOND
- GLASS PASSIVATED CHIP JUNCTION

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



DIM	MIN	MAX	REMARK
H*	**0.295(7.5)**	**0.311(7.9)**	**SUFFIX "S" THIN CASE**
I*	**0.74(18.80)**	**0.84(21.30)**	**SUFFIX "S" THIN CASE**
L*	**1.09(27.89)**	**-**	**SUFFIX "S" THIN CASE**

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	BP40 -005G	BP40 -01G	BP40 -02G	BP40 -04G	BP40 -06G	BP40 -08G	BP40 -10G	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	40.0							A
PEAK FORWARD SURGE CURRENT SINGLE SINE-WAVE SUPERIMPOSED ON RATED LOAD	I_{FSM}	400							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°C UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	BP40 -005G	BP40 -01G	BP40 -02G	BP40 -04G	BP40 -06G	BP40 -08G	BP40 -10G	UNITS
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE PER BRIDGE ELEMENT AT SPECIFIED CURRENT	V_F	1.1							V
MAXIMUM REVERSE DC CURRENT AT RATE DC BLOCKING VOLTAGE PER ELEMENT	I_R	10							μA

NOTE: Suffix No. Versus Different Cases and Terminals

CASE / SUFFIX No / TERMINAL	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 BP40-005G THRU BP40-10G

FIG. 1 -MAXIMUM OUTPUT RECTIFIED CURRENT

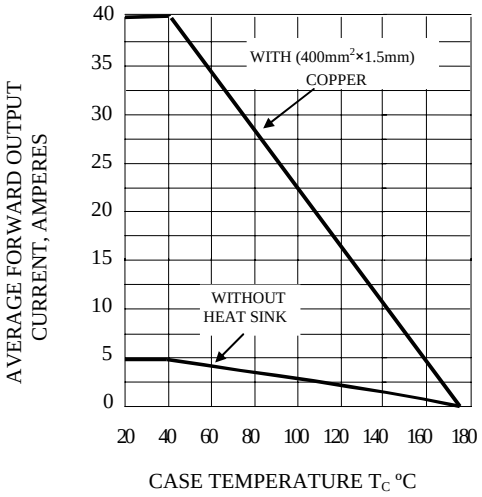


FIG. 4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

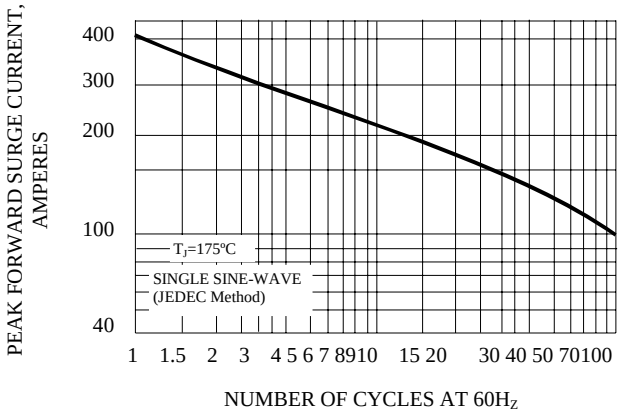


FIG. 2 - TYPICAL REVERSE CHARACTERISTICS AT T_J=25ºC

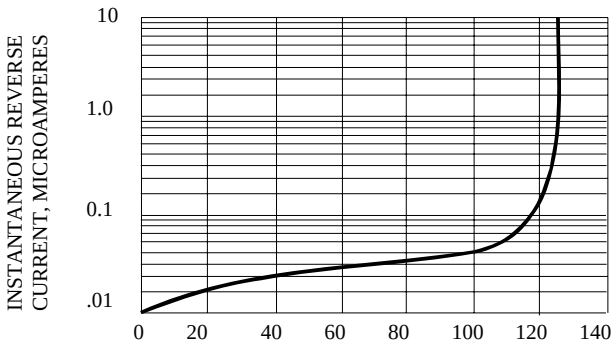


FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

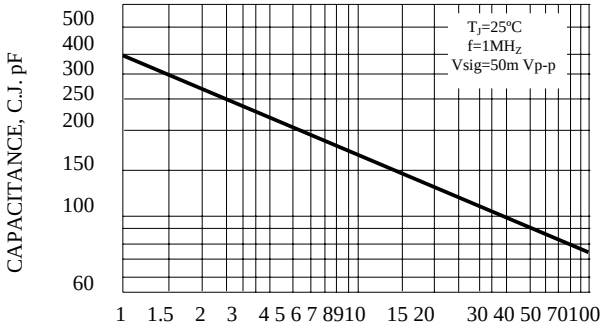
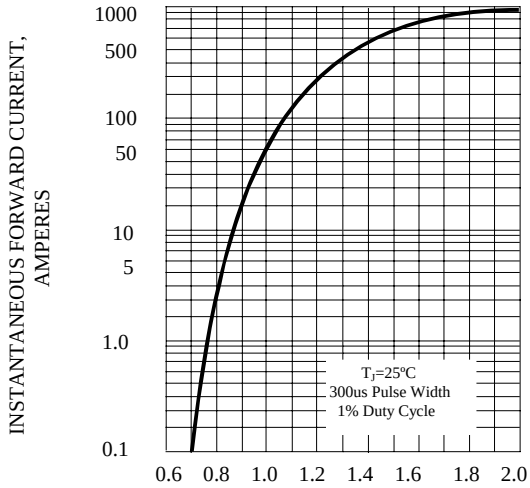
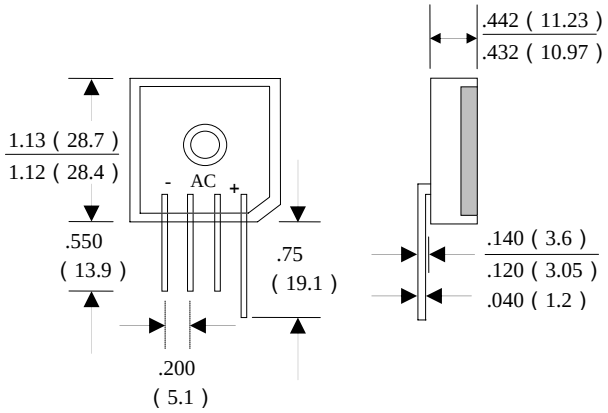


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS





BP35-L IN LINE PIN CONFIGURATION
(PLASTIC CASE)