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50A HIGH CURRENT SILICON BRIDGE RECTIFIERS

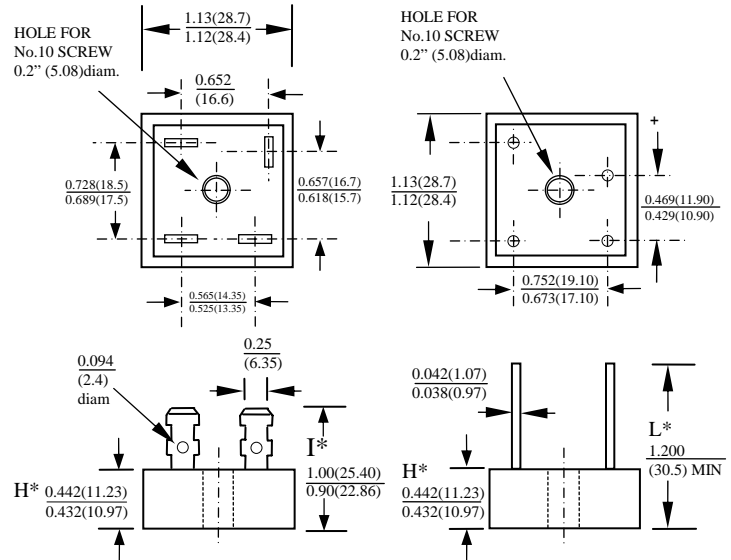
BP50-005G THRU BP50-10G

FEATURES

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

MECHANICAL DATA

- CASE: METAL HEAT SINK CASE, ELECTRICALLY INSULATED
DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: UNIVERSAL .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



| 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 | BP50 -005G | BP50 -01G | BP50 -02G | BP50 -04G | BP50 -06G | BP50 -08G | BP50 -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 | 50.0 | | | | | | | A |
| PEAK FORWARD SURGE CURRENT SINGLE SINE-WAVE SUPERIMPOSED ON RATED LOAD | I _{FSM} | 550 | | | | | | | 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 | BP50 -005G | BP50 -01G | BP50 -02G | BP50 -04G | BP50 -06G | BP50 -08G | BP50 -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 | | | | | | | μ A |

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 BP50-005G THRU BP50-10G

FIG 1 MAXIMUM OUTPUT RECTIFIED CURRENT

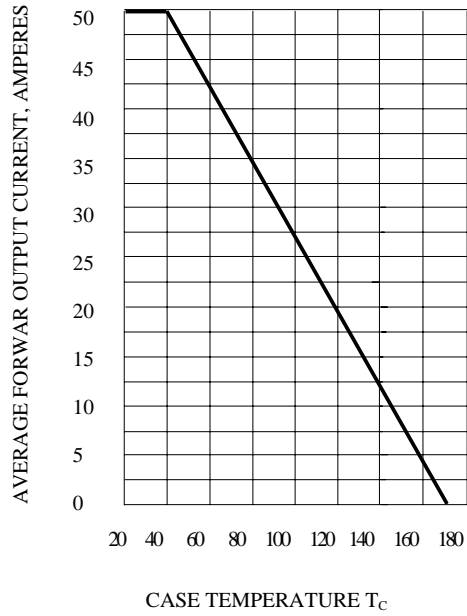


FIG 2 TYPICAL REVERSE CHARACTERISTICS AT T_J=25°C

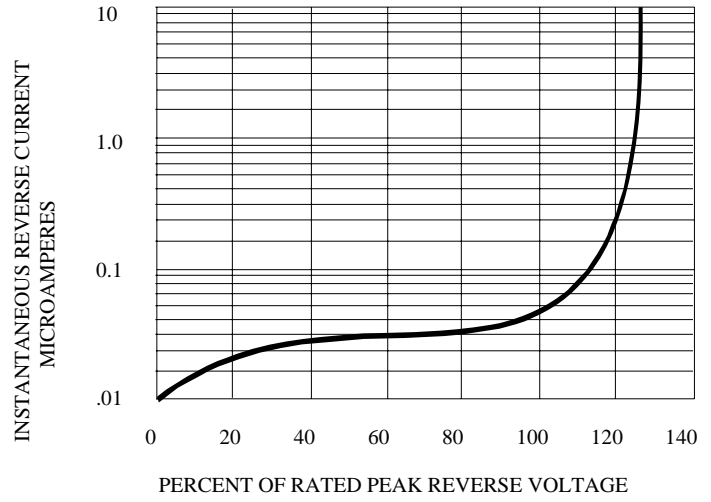


FIG 3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

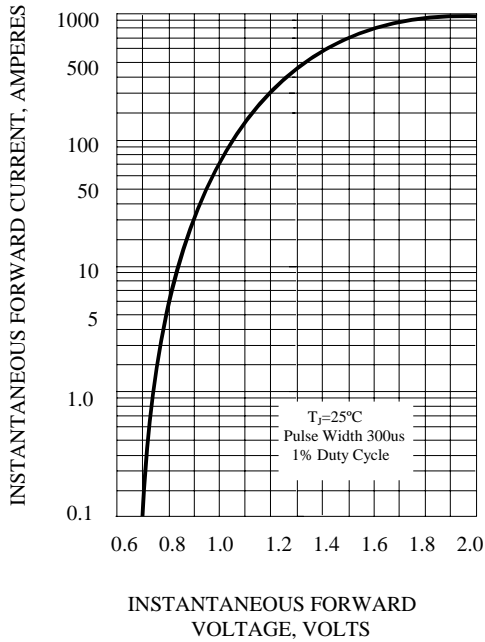
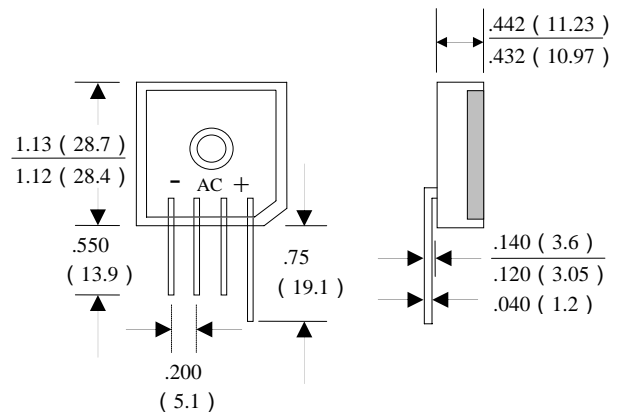
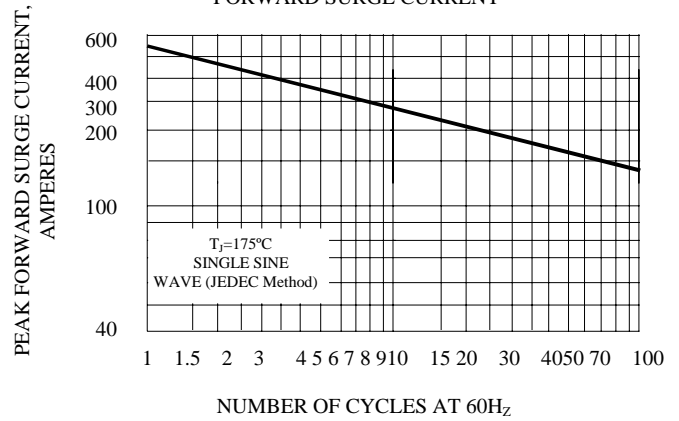


FIG 4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



BP50-L IN LINE PIN CONFIGURATION (PLASTIC CASE)