

KBPC3500 - KBPC3510

PRV : 50 - 1000 Volts

Io : 35 Amperes

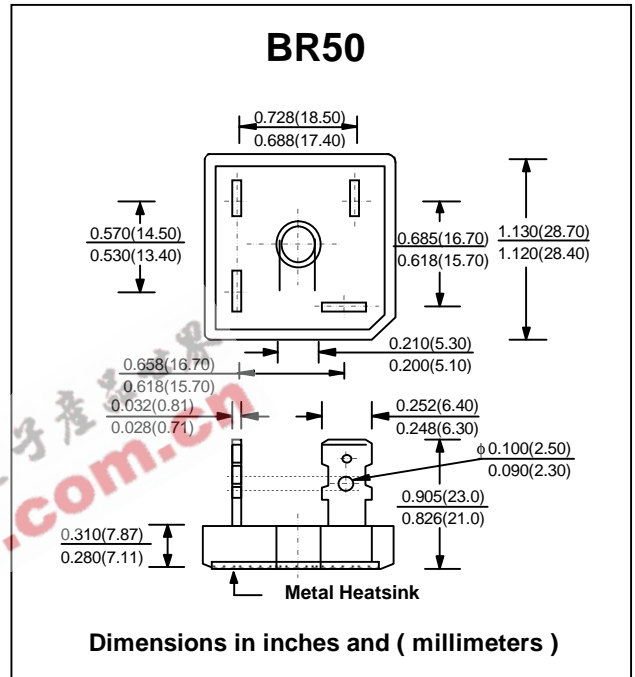
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : Metal Case
- * Epoxy : UL94V-O rate flame retardant
- * Terminals : plated .25" (6.35 mm). Faston
- * Polarity : Polarity symbols marked on case
- * Mounting position : Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency.
- * Weight : 17.1 grams

SILICON BRIDGE RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

| RATING | SYMBOL | KBPC 3500 | KBPC 3501 | KBPC 3502 | KBPC 3504 | KBPC 3506 | KBPC 3508 | KBPC 3510 | UNIT |
|--|-----------------|-----------|-----------|-----------|---------------|-----------|-----------|------------|--------------|
| 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 Current $T_c = 55^\circ C$ | $I_{F(AV)}$ | | | | 35 | | | | A |
| Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method) | I_{FSM} | | | | 400 | | | | A |
| Current Squared Time at $t < 8.3$ ms. | I^2t | | | | 660 | | | | A^2S |
| Maximum Forward Voltage per Diode at $I_F = 17.5$ A | V_F | | | | 1.1 | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | | | | 10 | | | | μA |
| | $I_{R(H)}$ | | | | 200 | | | | μA |
| Typical Thermal Resistance (Note 1) | $R_{\theta JC}$ | | | | 1.5 | | | | $^\circ C/W$ |
| Typical Thermal Resistance at Junction to Ambient | $R_{\theta JA}$ | | | | 10 | | | | $^\circ C$ |
| Operating Junction Temperature Range | T_J | | | | - 40 to + 150 | | | $^\circ C$ | |
| Storage Temperature Range | T_{STG} | | | | - 40 to + 150 | | | $^\circ C$ | |

Note :

1. Thermal Resistance from junction to case with units mounted on a 7.5" x 3.5" x 4.6" (19cm.x 9cm.x 11.8cm.) Al.-Finned Plate

RATING AND CHARACTERISTIC CURVES (KBPC3500 - KBPC3510)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

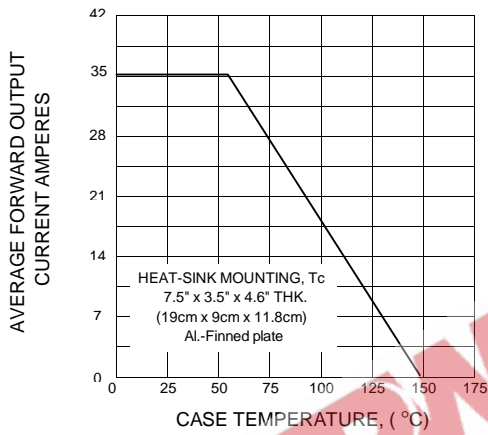


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

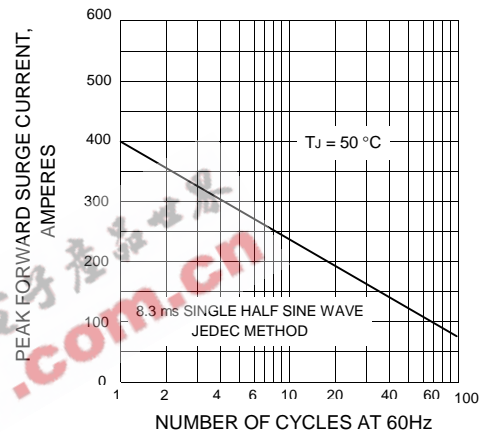


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE

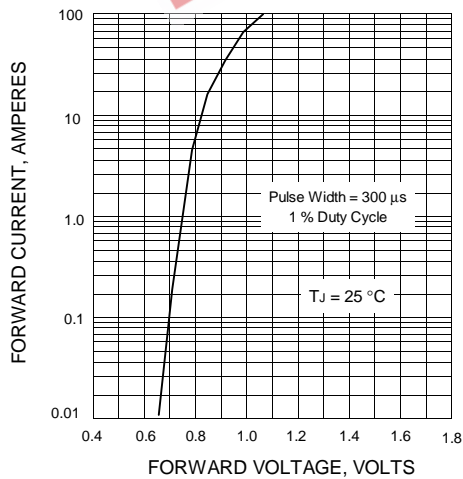


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE

