PB6 SERIES KBPC6 SERIES

SINGLE-PHASE SILICON BRIDGE

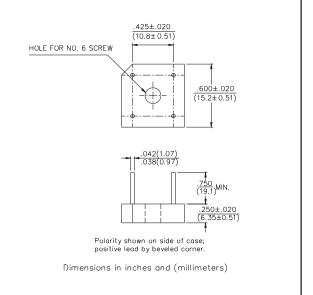




FEATURES

- Surge overload rating-150 amperese peak
- Low forward voltage drop
- Small size, simple installation
- Silver plated copper leads
- Mounting position: Any
- Plastic material has UL flammability
- classification 94V-0
- UL recognized file # E149311
- Lead solderable per MIL-STD-202 method 208
- Electrically isolated base 1800Volts

VOLTAGE RANGE 50 TO 1000 VOLTS CURRENT 3.0 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25° C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Tor capacitive load, derate current by 20 %. | | PB605 | PB61 | PB62 | PB64 | PB66 | PB68 | PB610 | |
|--|-------------------|-------------|---------|---------|---------|---------|---------|------------------|------------|
| | | KBPC6005 | KBPC601 | KBPC602 | KBPC604 | KBPC606 | KBPC608 | KBPC610 | UNITS |
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | ٧ |
| Maximum RMS Bridge Input Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | ٧ |
| Maximum DC Blocking Voltage | V_{DC} | 60 | 100 | 200 | 400 | 600 | 800 | 1000 | ٧ |
| Maximum Average Forward @ T _A =50°C* Output Current @ T _A =50°C** | V _(AV) | 8.0 6.0 | | | | | | A A | |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 150 | | | | | | | А |
| Maximum DC Forward Voltage drop per element at 3.0A DC | V _F | 1.1 | | | | | | ٧ | |
| Maximum DC Reverse Current at rated @ T _A =25°C DC Blocking Voltage Per Element @ T _A =100°C | I _R | 10 | | | | | | | μ A |
| | | 1 | | | | | | | mA |
| I ² t Rating for fusing(t<8.3ms) | l ² t | 64 | | | | | | A ² S | |
| Typical Thermal Resistance | $R\theta JC$ | | | | 8 | | | | °C/W |
| Operating Temperature Range | T _J | -55 to +125 | | | | | | °C | |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | °C | |

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RATING AND CHARACTERISTICS CURVES KBPC6 SERIES

Fig.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

10

8

HEAT-SINK MOUNTING T_C

PC MOUNTING T_A

10

10

10

10

10

10

100

150

TEMPERATURE, °C

CHARACTERISTICS

10

1.0

1.0

T_J=25°C

0.1

0 20 40 60 80 100 120 140

PERCENT OF RATED PEAK

REVERSE VOLTAGE

INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

INSTANTANEOUS FORWARD CURRENT. (A)

Fig.2 - TYPICAL REVERSE

