

High Current Bridge Rectifier



KBPC Series

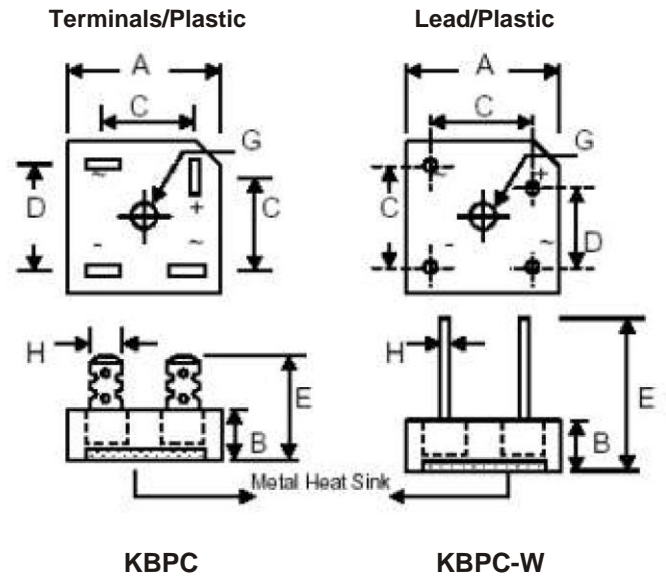
Reverse Voltage: 50 - 1000 Volts
Forward Current: 10/15/25/35/50 Amp

Features

- Surge overload 200 - 400 Amp peak
- Low forward voltage dro
- Mounting position: Any
- Electrically isolated base - 1800 Volts
- Solderable 0.25" FASTON terminals
- Materials used carries U/L recognition

Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Mounting: Through Hole for #10 Screw
- Weight: 30 grams (approx.)



| Dim | TERMINALS | | LEAD | |
|----------------------------|-----------------------------------|-------|-------|-------|
| | Min | Max | Min | Max |
| A | 28.40 | 28.70 | 28.40 | 28.70 |
| B | 10.97 | 11.23 | 10.97 | 11.23 |
| C | 15.70 | 16.70 | 17.10 | 19.10 |
| D | 17.50 | 18.50 | 10.90 | 11.90 |
| E | 22.86 | 25.40 | 30.50 | - |
| G | Hole for #10 screw, 5.08Ø Nominal | | | |
| H | 6.35 Typical | | 0.97Ø | 1.07Ø |
| All Dimension in mm | | | | |

Silicon Bridge Rectifiers



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load 60Hz.

For capacitive load current by 20%

| CHARACTERISTICS | KBPC | KBPC | KBPC | KBPC | KBPC | KBPC | KBPC | UNIT |
|---|-------------|------|------|------|------|------|------|------|
| | 10005 | 1001 | 1002 | 1004 | 1006 | 1008 | 1010 | |
| | 15005 | 1501 | 1502 | 1504 | 1506 | 1508 | 1510 | |
| | 25005 | 2501 | 2502 | 2504 | 2506 | 2508 | 2510 | |
| | 35005 | 3501 | 3502 | 3504 | 3506 | 3508 | 3510 | |
| | 50005 | 5001 | 5002 | 5004 | 5006 | 5008 | 5010 | |
| Maximum Recurrent Peak Reverse Voltage | | | | 400 | 600 | | | |
| Maximum RMS Bridge Input Voltage | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum Forward Voltage Drop per element at 5.0/7.5/12.5/17.5/25.0A Peak | 1.2 | | | | | | | V |
| Maximum Reverse Current at Rate DC Blocking Voltage per element @ T _A = 25°C | 10 | | | | | | | uA |
| Operating Temperature Range T _C | -55 to +125 | | | | | | | °C |
| Storage Temperature Range T _A | -55 to +150 | | | | | | | °C |

Maximum Ratings and Electrical Characteristics

| CHARACTERISTICS | KBPC10005 - 1010 | KBPC15005 - 1510 | KBPC25005 - 2510 | KBPC35005 - 3510 | KBPC50005 - 5010 | UNIT |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|------|
| Maximum Average Forward Rectified Output Current @ T _C = 55°C | 10 | 15 | 25 | 35 | 50 | A |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load | 200 | 300 | 300 | 400 | 400 | A |

NOTES: Also available on KBPC 10W/15W /25W/35W /50W series.

Silicon Bridge Rectifiers



Rating and Characteristic Curves (KBPC10, 15, 25, 35, 50)

Fig. 1 - Reverse Characteristics

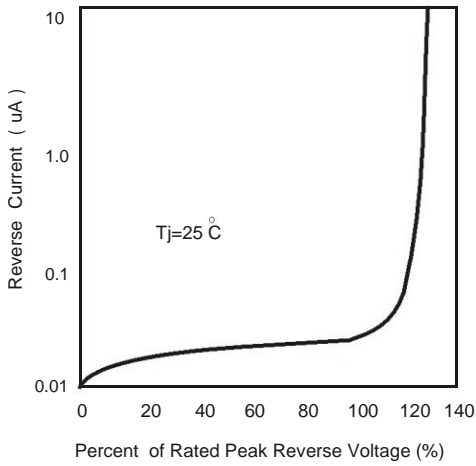


Fig. 2 - Forward Characteristics

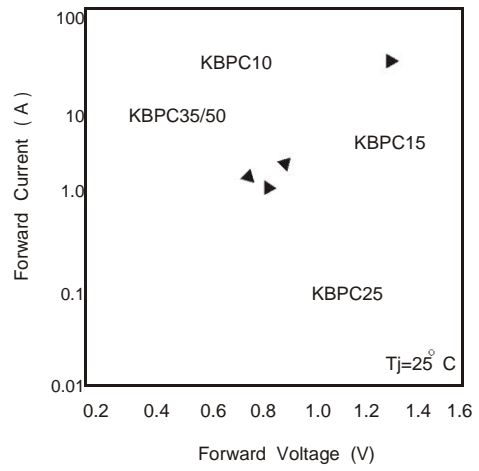


Fig. 3 - Non Repetitive Forward Surge Current

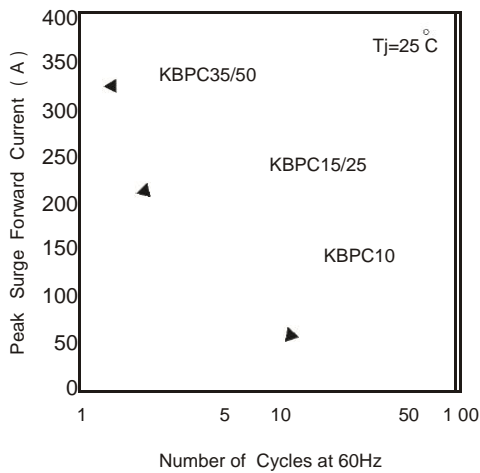


Fig. 4 - Current Derating Curve

