

KBPC8005 thru KBPC810

8.0 A Single-Phase Silicon Bridge Rectifier
Rectifier Reverse Voltage 50 to 1000V

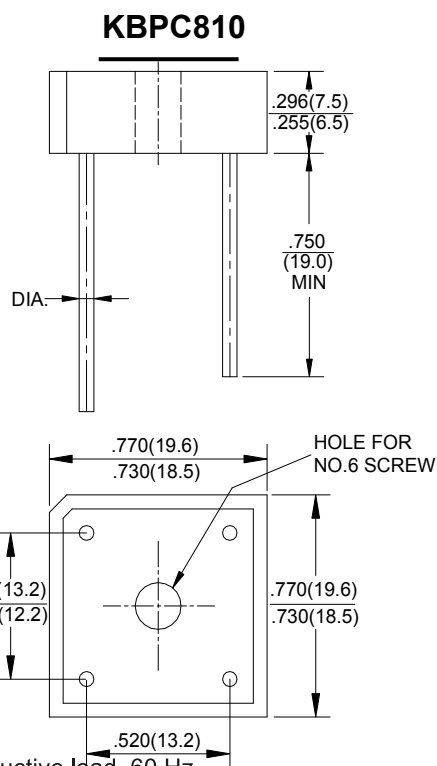


Features

- This series is UL listed under the Recognized Component Index, file number E142814
- High temperature metallurgically bonded internal rectifiers
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- High temperature soldering guaranteed 265°C/ 10 seconds at 5 lbs (2.3kg) tension

Mechanical Data

Case: Void-free plastic package
 Terminals: Plated leads solderable per MIL-STD-202, Method 208
 Mounting: Thru hole for #6 screw
 Mounting position: Any
 Weight: 0.24 ounce, 6.9 grams (approx)



Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
 For Capacitive load derate current by 20%.

| Parameter | Symbol | KBPC 8005 | KBPC 801 | KBPC 802 | KBPC 804 | KBPC 806 | KBPC 808 | KBPC 810 | unit |
|---|------------------|--------------|----------|----------|----------|----------|----------|----------|--------------------|
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS bridge input voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified output current Tc = 50 °C (1) | IF(AV) | 8.0 | | | | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM | 125 | | | | | | | A |
| Rating for fusing (t<8.3ms) | I ² t | 65 | | | | | | | A ² sec |
| Typical thermal resistance per element (2) | RthJA | 9.4 | | | | | | | °C/W |
| Typical junction capacitance per element(3) | Cj | 55 | | | | | | | pF |
| Operating junction and storage temperature range | TJ, TSTG | -55 to + 150 | | | | | | | °C |

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
 For Capacitive load derate by 20 %.

| Parameter | Symbol | KBPC 8005 | KBPC 801 | KBPC 802 | KBPC 804 | KBPC 806 | KBPC 808 | KBPC 810 | Unit |
|---|--------|------------|----------|----------|----------|----------|----------|----------|------|
| Maximum instantaneous forward voltage drop per leg at 4.0A | VF | 1.1 | | | | | | | V |
| Maximum DC reverse current at rated TA =25°C DC blocking voltage per element TA =100°C | IR | 10 1000 | | | | | | | μA |

Notes: (1) Mounted on metal chassis.
 (2) Non-repetitive, for t>1ms and < 8.3ms.
 (3) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Rating and Characteristic Curves ($T_A=25^\circ\text{C}$ Unless otherwise noted)
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Fig. 1 Derating Curve for Output Rectified Current

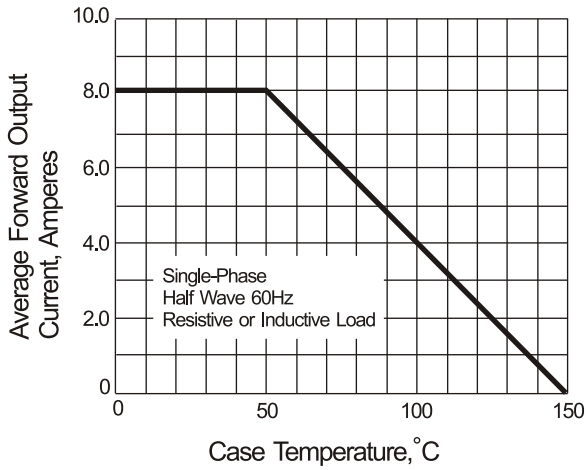


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

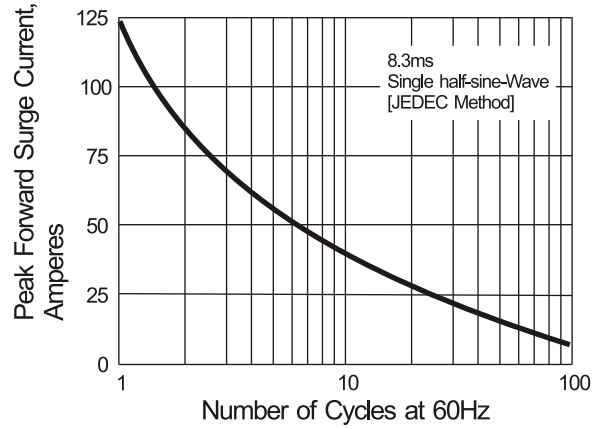


Fig. 3 Typical Instantaneous Forward Characteristics

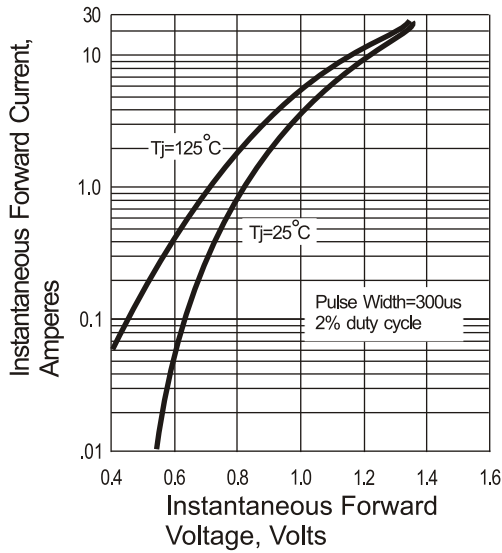


Fig. 4 Typical Reverse Characteristics

