



SEP ELECTRONIC CORP.

**KBPC35005 thru KBPC3510****35.0 A Single-Phase Silicon Bridge Rectifier**  
Rectifier Reverse Voltage 50 to 1000V**Features**

- Surge overload ratings to 400 amperes
- This series is UL listed under the Recognized Component Index, file number E142814
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Universal 4-way terminals, snap-on, wrap-around, solder or P.C. Board mounting
- High temperature soldering guaranteed 265 °C/10 seconds at 5 lbs (2.3kg) tension

**Mechanical Data**

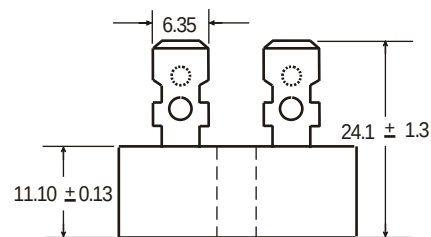
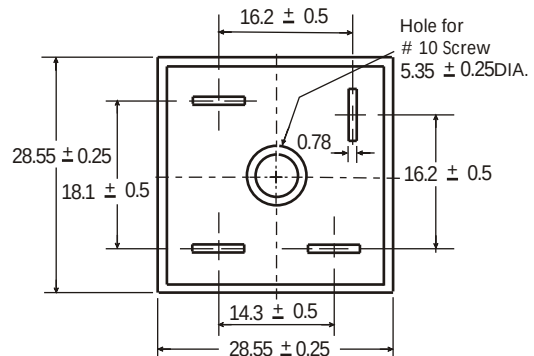
Case: Metal case

Terminals: Plated .25" (6.35mm) Faston

Mounting Position: Bolt down on heat-sink with silicone thermal compound between bridges and mounting surface for maximum heat transfer efficiency

Mounting Position: Any

Weight: 0.706 ounce, 20 grams (approx)



Dimensions in millimeters (1mm=0.0394")

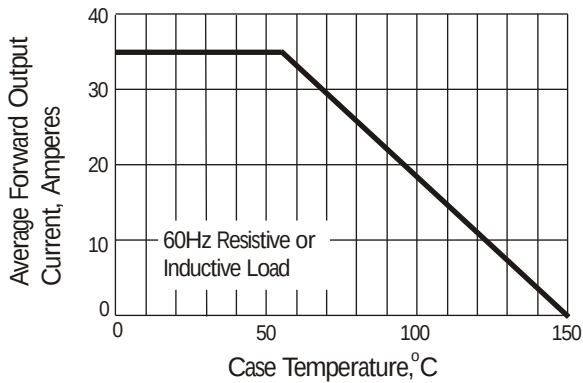
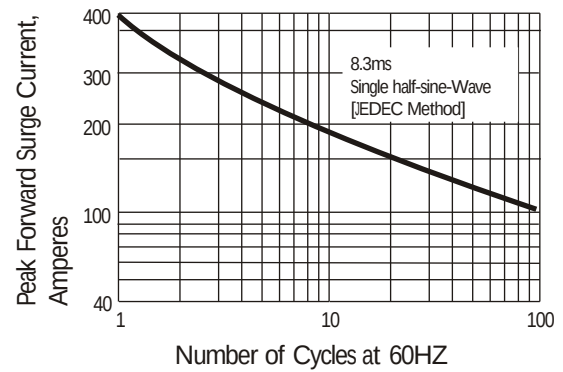
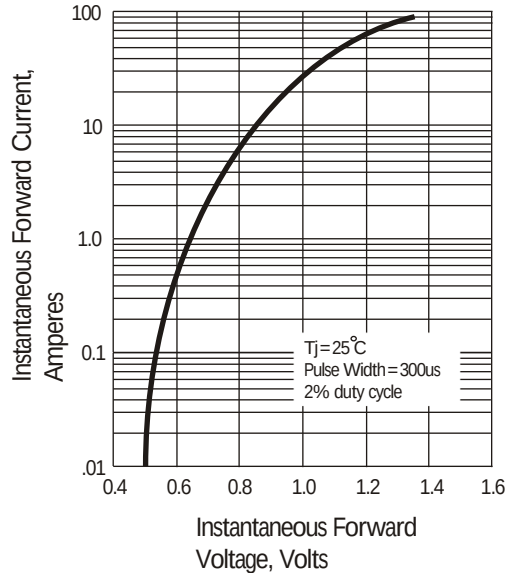
**Maximum Ratings & Thermal Characteristics**Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
For Capacitive load derate current by 20%.

| Parameter                                                                             | Symbol           | KBPC 35005   | KBPC 3501 | KBPC 3502 | KBPC 3504 | KBPC 3506 | KBPC 3508 | KBPC 3510 | 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 at TA=55°C                           | IF(AV)           | 35           |           |           |           |           |           |           | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 400          |           |           |           |           |           |           | A                  |
| Rating for fusing ( t<8.3ms)                                                          | I <sup>2</sup> t | 664          |           |           |           |           |           |           | A <sup>2</sup> sec |
| Typical thermal resistance per element(1)                                             | ReJA             | 2.1          |           |           |           |           |           |           | °C / W             |
| Isolation voltage from case to leads                                                  |                  | 2500         |           |           |           |           |           |           | Vac                |
| 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 35005 | KBPC 3501 | KBPC 3502 | KBPC 3504 | KBPC 3506 | KBPC 3508 | KBPC 3510 | Unit |
|-------------------------------------------------------------------------------------------|--------|------------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| Maximum instantaneous forward voltage drop per leg at 17.5A                               | VF     | 1.0        |           |           |           |           |           |           | V    |
| Maximum DC reverse current at rated TA =25°C<br>DC blocking voltage per element TA =125°C | IR     | 10<br>500  |           |           |           |           |           |           | μA   |

**Notes:** (1) Thermal resistance from Junction to Ambient on P.C.board mounting.

**Rating and Characteristic Curves (  $T_A = 25^{\circ}\text{C}$  Unless otherwise noted )**  
**KBPC35005 thru KBPC3510****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 at  $T_J = 25^{\circ}\text{C}$** 