

# KBPC40, 50S SERIES

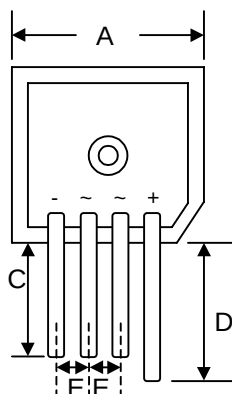
## 40, 50A IN-LINE BRIDGE RECTIFIER

### Features

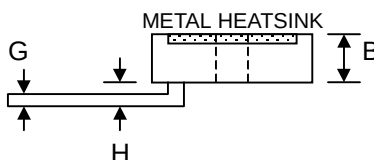
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
- Designed for Saving Mounting Space
- UL Recognized File # E157705

### Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 30 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



| KBPC-S               |                |       |
|----------------------|----------------|-------|
| Dim                  | Min            | Max   |
| A                    | 28.40          | 28.70 |
| B                    | 10.97          | 11.23 |
| C                    | 13.90          | —     |
| D                    | 19.10          | —     |
| E                    | 5.10           | —     |
| G                    | 1.20 Ø Typical |       |
| H                    | 3.05           | 3.60  |
| All Dimensions in mm |                |       |



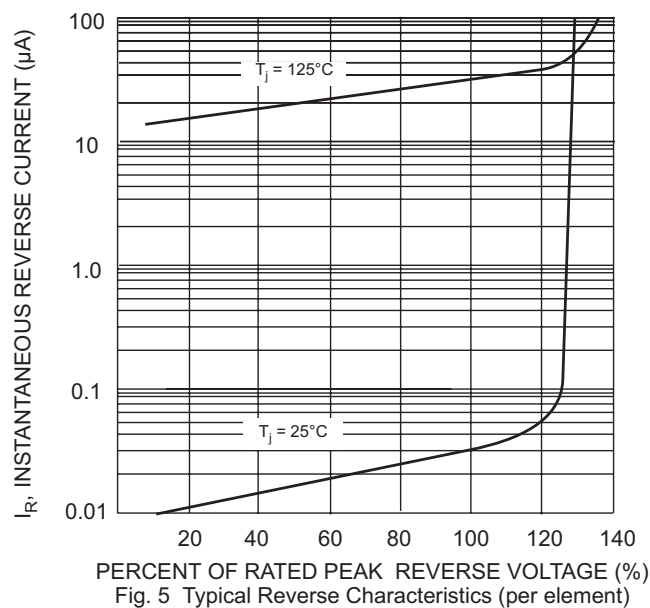
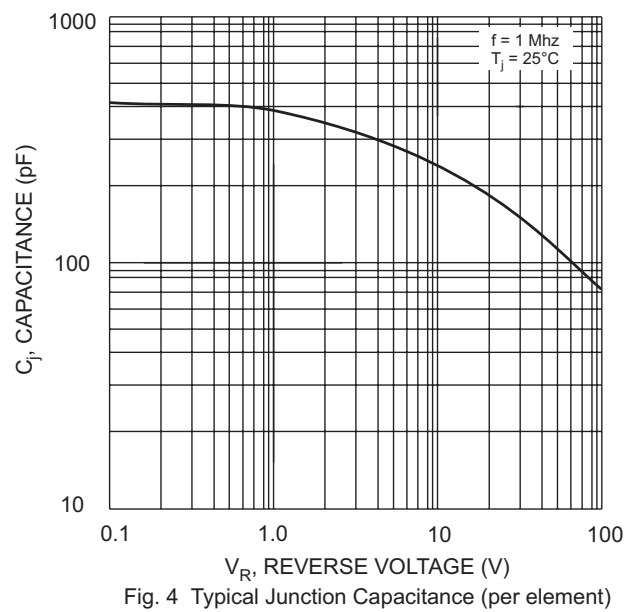
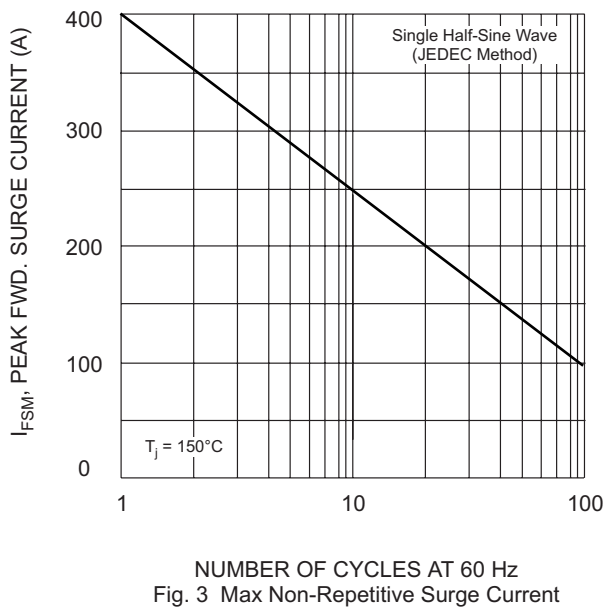
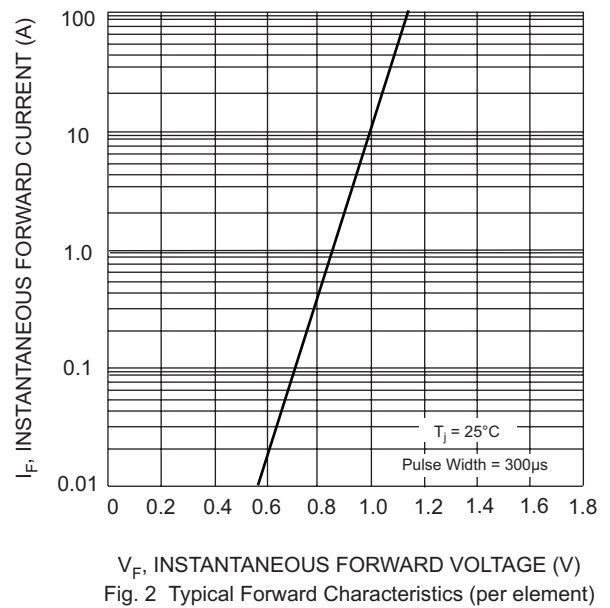
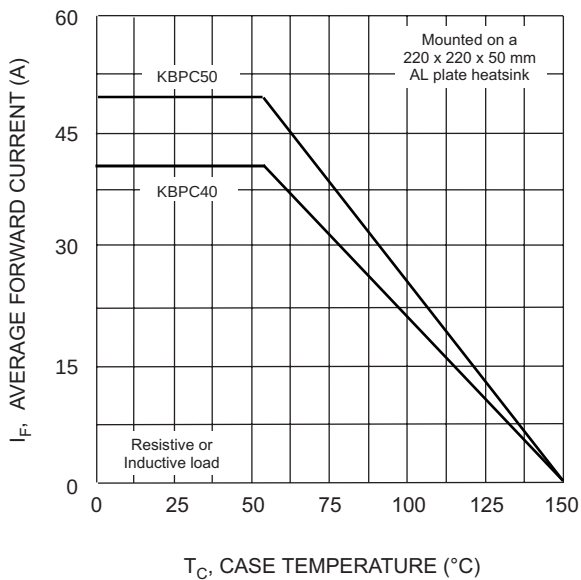
### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Characteristics                                                                                                        | Symbol                            | -00S        | -01S | -02S | -04S | -06S | -08S | -10S | Unit     |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------|------|------|------|------|------|----------|
| Peak Repetitive Reverse Voltage                                                                                        | V <sub>RRM</sub>                  |             |      |      |      |      |      |      |          |
| Working Peak Reverse Voltage                                                                                           | V <sub>RWM</sub>                  | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V        |
| DC Blocking Voltage                                                                                                    | V <sub>R</sub>                    |             |      |      |      |      |      |      |          |
| RMS Reverse Voltage                                                                                                    | V <sub>R(RMS)</sub>               | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V        |
| Average Rectified Output Current<br>@T <sub>C</sub> = 55°C                                                             | I <sub>O</sub>                    | 40<br>50    |      |      |      |      |      |      | A        |
| Non-Repetitive Peak Forward Surge Current,<br>8.3ms Single Half-sine-wave Superimposed<br>on Rated Load (JEDEC Method) | I <sub>FSM</sub>                  | 400<br>400  |      |      |      |      |      |      | A        |
| Forward Voltage Drop<br>(per element)                                                                                  | V <sub>FM</sub>                   | 1.2         |      |      |      |      |      |      | V        |
| Peak Reverse Current at<br>Rated DC Blocking Voltage (per element)                                                     | I <sub>R</sub>                    | 10<br>1.0   |      |      |      |      |      |      | μA<br>mA |
| Typical Thermal Resistance (per element) (Note 1)                                                                      | R <sub>θJC</sub>                  | 1.5         |      |      |      |      |      |      | K/W      |
| RMS Isolation Voltage from Case to Lead                                                                                | V <sub>ISO</sub>                  | 2500        |      |      |      |      |      |      | V        |
| Operating and Storage Temperature Range                                                                                | T <sub>j</sub> , T <sub>STG</sub> | -55 to +150 |      |      |      |      |      |      | °C       |

Note: 1. Thermal resistance junction to case per element mounted on 8" x 8" x 25" thick AL plate.



## ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| KBPCxx00S   | SIL Bridge   | 72 Units/Box      |
| KBPCxx01S   | SIL Bridge   | 72 Units/Box      |
| KBPCxx02S   | SIL Bridge   | 72 Units/Box      |
| KBPCxx04S   | SIL Bridge   | 72 Units/Box      |
| KBPCxx06S   | SIL Bridge   | 72 Units/Box      |
| KBPCxx08S   | SIL Bridge   | 72 Units/Box      |
| KBPCxx10S   | SIL Bridge   | 72 Units/Box      |

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

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