
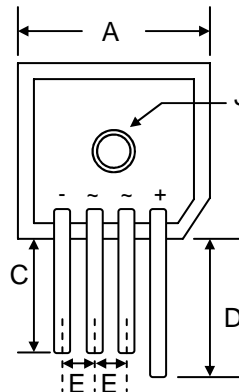


Features

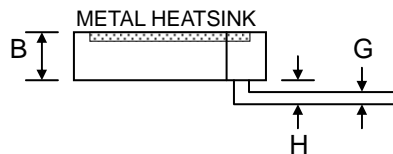
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Designed for Saving Mounting Space
-  Recognized File # E157705

Mechanical Data

- Case: KBPC-S, Molded Plastic with Heatsink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (approx.)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



| KBPC-S | | |
|----------------------|----------------|-------|
| Dim | Min | Max |
| A | 28.40 | 28.70 |
| B | 10.97 | 11.23 |
| C | — | 21.00 |
| D | — | 25.00 |
| E | 5.10 | — |
| G | 1.20 Ø Typical | |
| H | 3.05 | 3.60 |
| J | 5.08 Ø Nominal | |
| All Dimensions in mm | | |



Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Characteristic | Symbol | KBPC40 | | | | | | | | | | Unit |
|---|--|-------------|-----|-----|-----|-----|-----|------|------|------|------|------------------|
| | | 00S | 01S | 02S | 04S | 06S | 08S | 10S | 12S | 14S | 16S | |
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | 1200 | 1400 | 1600 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | 840 | 980 | 1120 | V |
| Average Rectified Output Current @T _A = 60°C | I _O | 40 | | | | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 400 | | | | | | | | | | A |
| Forward Voltage per leg @I _F = 20A | V _{FM} | 1.1 | | | | | | | | | | V |
| Peak Reverse Current @T _C = 25°C At Rated DC Blocking Voltage @T _C = 125°C | I _{RM} | 10 500 | | | | | | | | | | μA |
| I ² t Rating for Fusing (t < 8.3ms) | I ² t | 664 | | | | | | | | | | A ² s |
| Typical Junction Capacitance (Note 1) | C _j | 400 | | | | | | | | | | pF |
| Typical Thermal Resistance per leg (Note 2) | R _{θJC} | 2.1 | | | | | | | | | | °C/W |
| RMS Isolation Voltage from Case to Leads | V _{ISO} | 2500 | | | | | | | | | | V |
| Operating and Storage Temperature Range | T _J , T _{STG} | -65 to +150 | | | | | | | | | | °C |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance junction to case, mounted on heatsink.

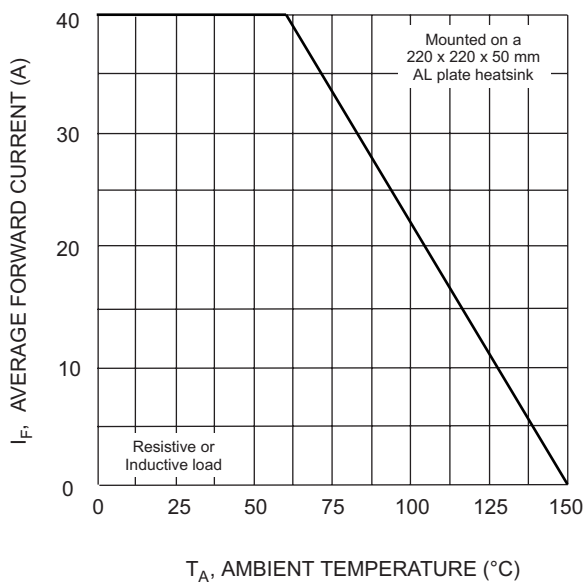


Fig. 1 Forward Current Derating Curve

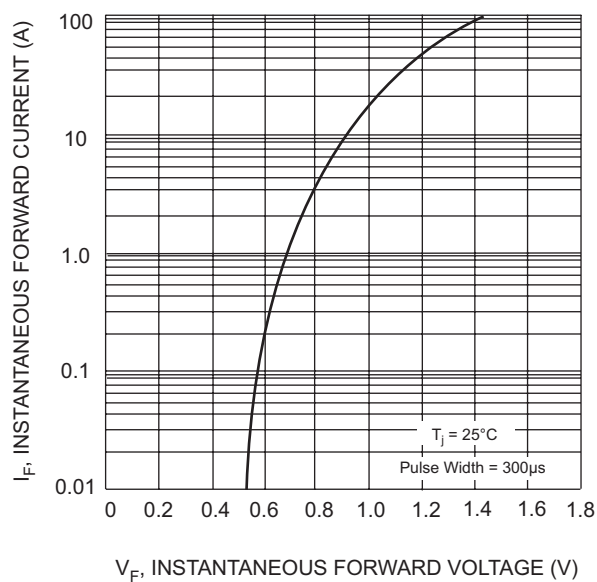


Fig. 2 Typical Forward Characteristics (per element)

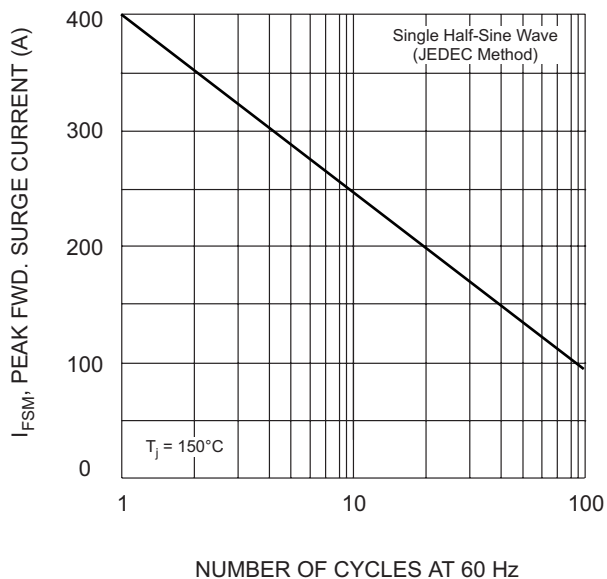


Fig. 3 Max Non-Repetitive Surge Current

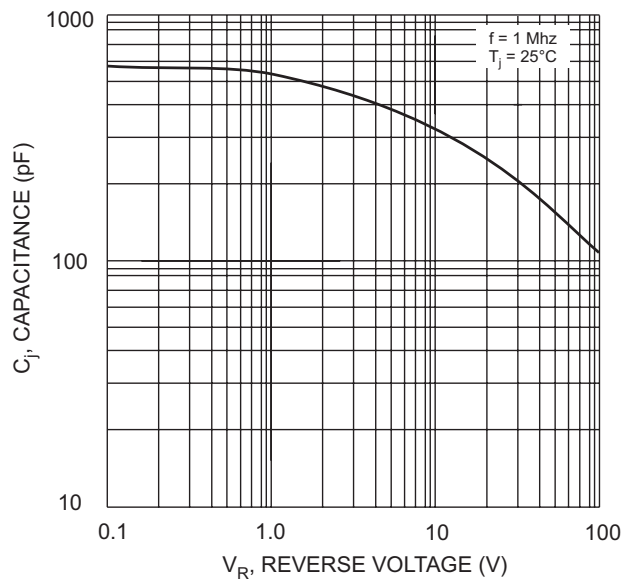


Fig. 4 Typical Junction Capacitance (per element)

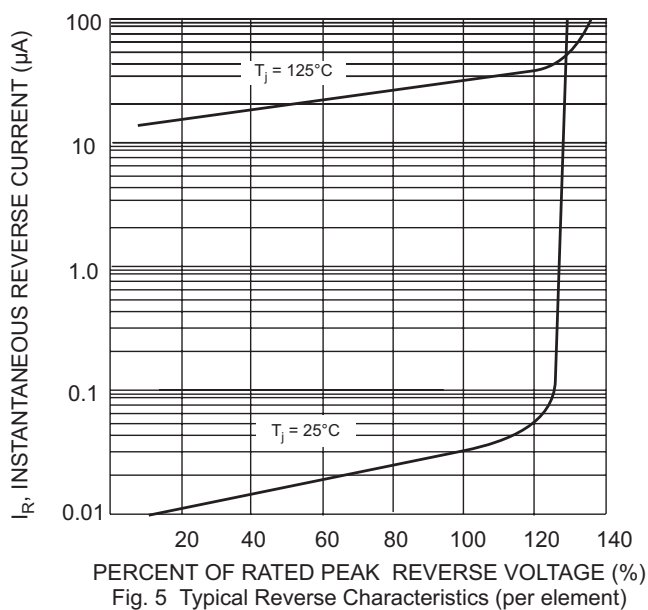
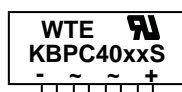


Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION



WTE = Manufacturer's Logo
KBPC40xxS = Device Number
xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16
Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

| Inner Box Size L x W x H (mm) | Quantity (PCS) | Carton Size L x W x H (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| 195 x 195 x 40 | 78 | 405 x 205 x 240 | 780 | 17.0 |

Note: 1. Paper box, white or brown color.

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| KBPC4000S | SIL Bridge | 78 Units/Box |
| KBPC4001S | SIL Bridge | 78 Units/Box |
| KBPC4002S | SIL Bridge | 78 Units/Box |
| KBPC4004S | SIL Bridge | 78 Units/Box |
| KBPC4006S | SIL Bridge | 78 Units/Box |
| KBPC4008S | SIL Bridge | 78 Units/Box |
| KBPC4010S | SIL Bridge | 78 Units/Box |
| KBPC4012S | SIL Bridge | 78 Units/Box |
| KBPC4014S | SIL Bridge | 78 Units/Box |
| KBPC4016S | SIL Bridge | 78 Units/Box |

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBPC4000S-LF.**

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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.

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We power your everyday.