


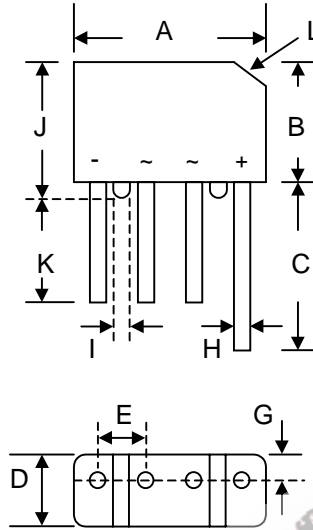
1.5A SINGLE-PHASE BRIDGE RECTIFIER

Features

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

Mechanical Data

- Case: KBP, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 1.7 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



| KBP | | |
|----------------------|-------------------|-------|
| Dim | Min | Max |
| A | 14.22 | 15.24 |
| B | 10.67 | 11.68 |
| C | 15.20 | — |
| D | 4.57 | 5.08 |
| E | 3.60 | 4.10 |
| G | 1.00 | 1.40 |
| H | 0.76 | 0.86 |
| I | 1.52 | — |
| J | 11.68 | 12.70 |
| K | 12.7 | — |
| L | 3.2 x 45° Typical | |
| 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 | KBP 150 | KBP 151 | KBP 152 | KBP 154 | KBP 156 | KBP 158 | KBP 1510 | Unit |
|--|--|-------------|---------|---------|---------|---------|---------|----------|------------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V _{RRM} V _{RWM} V _R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average Rectified Output Current @T _A = 50°C | I _O | 1.5 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 50 | | | | | | | A |
| Forward Voltage per leg @I _F = 1.5A | V _{FM} | 1.3 | | | | | | | V |
| Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C | I _{RM} | 5.0 500 | | | | | | | μA |
| Rating for Fusing (t<8.3ms) | I ² t | 10 | | | | | | | A ² s |
| Typical Junction Capacitance per leg (Note 1) | C _j | 15 | | | | | | | pF |
| Typical Thermal Resistance per leg (Note 2) | R _{θJA} R _{θJL} | 40 13 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T _j , T _{STG} | -55 to +150 | | | | | | | °C |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
2. Mounted on PC board with 12mm² copper pad.

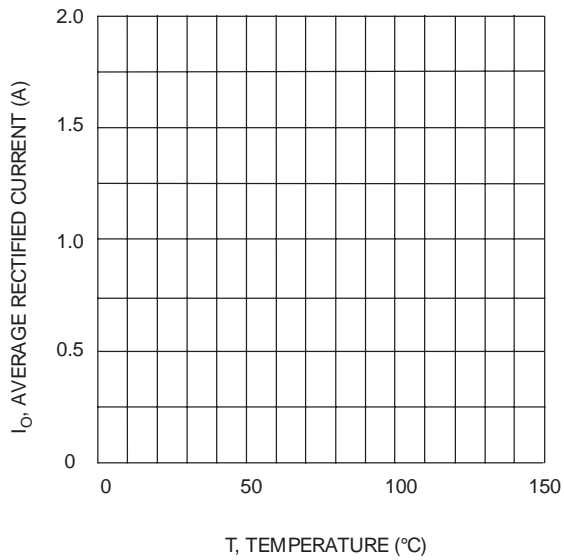


Fig. 1 Forward Current Derating Curve

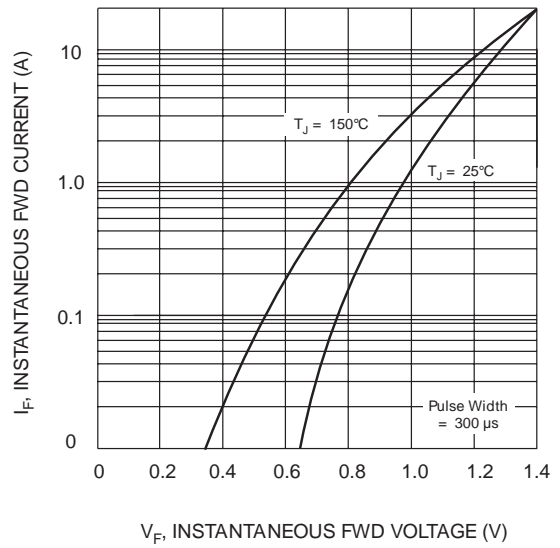


Fig. 2 Typical Fwd Characteristics

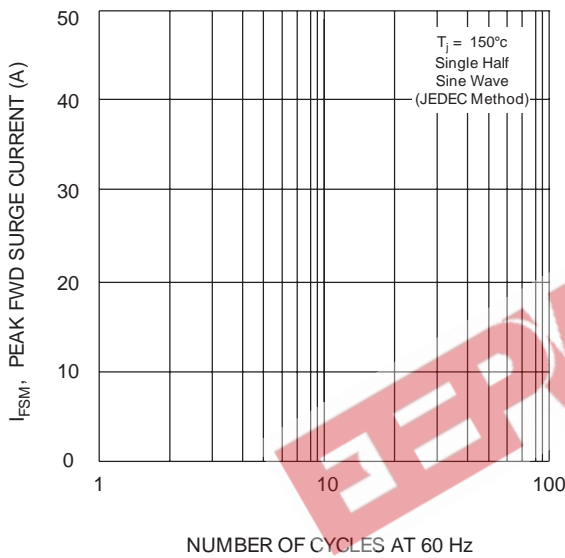


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

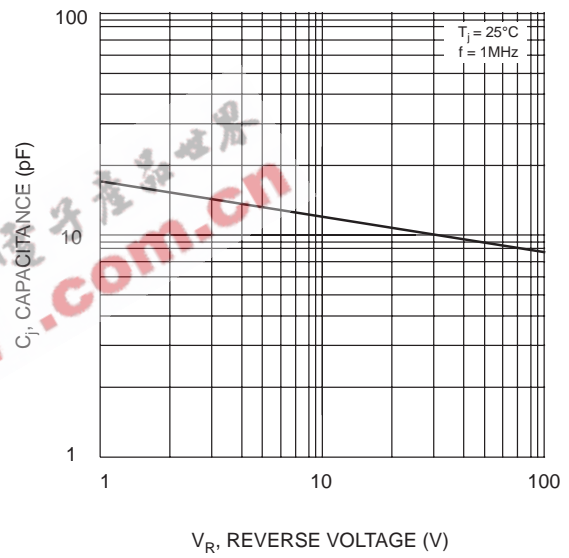


Fig. 4 Typical Junction Capacitance

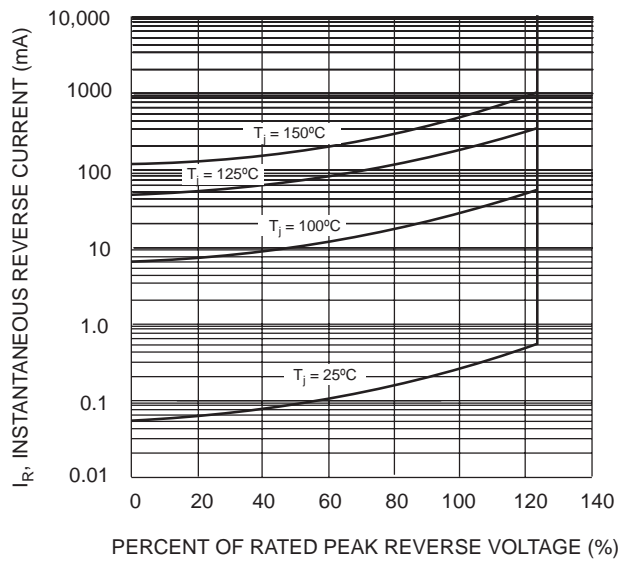
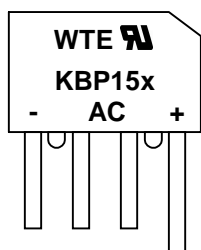


Fig. 5 Typical Reverse Characteristics

MARKING INFORMATION



WTE = Manufacturer's Logo
 KBP15x = Device Number
 x = 0, 1, 2, 4, 6, 8 or 10
 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) |
|----------------------------------|-------------------|-------------------------------|-------------------|------------------------------|
| 200 x 160 x 42 | 600 | 425 x 215 x 280 | 7,200 | 17.0 |

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

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ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| KBP150 | SIL Bridge | 600 Units/Box |
| KBP151 | SIL Bridge | 600 Units/Box |
| KBP152 | SIL Bridge | 600 Units/Box |
| KBP154 | SIL Bridge | 600 Units/Box |
| KBP156 | SIL Bridge | 600 Units/Box |
| KBP158 | SIL Bridge | 600 Units/Box |
| KBP1510 | SIL Bridge | 600 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, KBP150-LF.**

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