WTE
POWER SEMICONDUCTORS

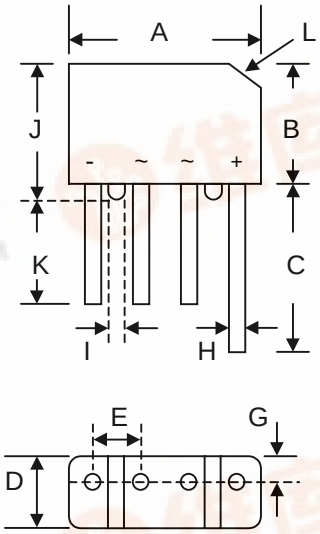
KBP150 – KBP1510

RoHS Pb

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



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		

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**

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^2t	10							A^2s
Typical Junction Capacitance per leg (Note 1)	C_j	15							pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	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.

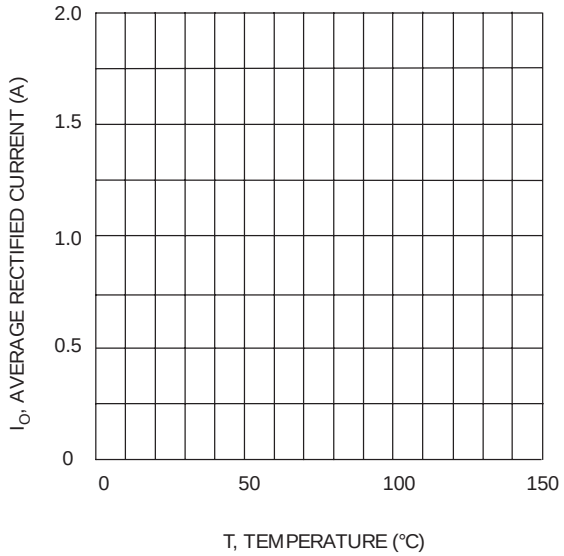


Fig. 1 Forward Current Derating Curve

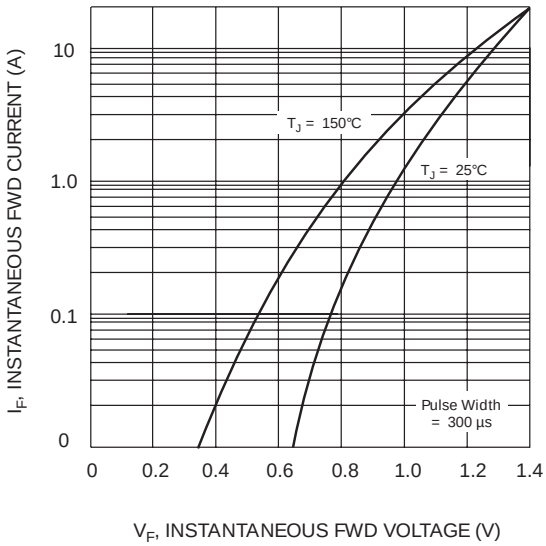


Fig. 2 Typical Fwd Characteristics

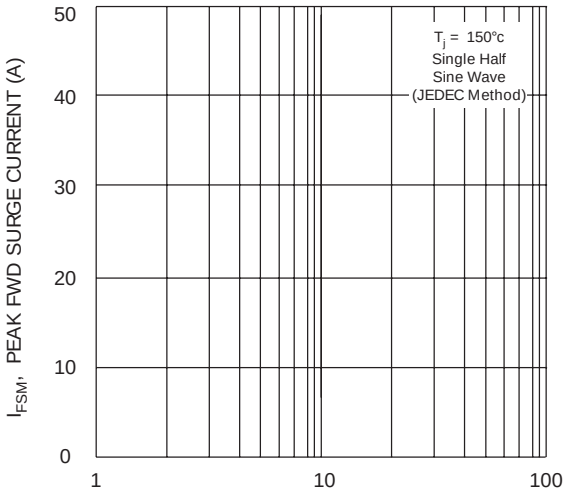


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

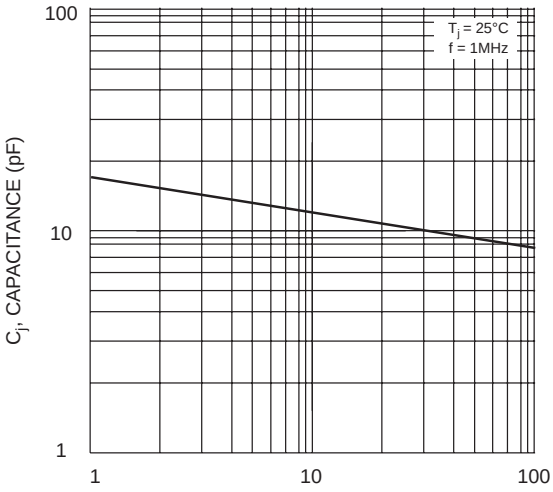


Fig. 4 Typical Junction Capacitance

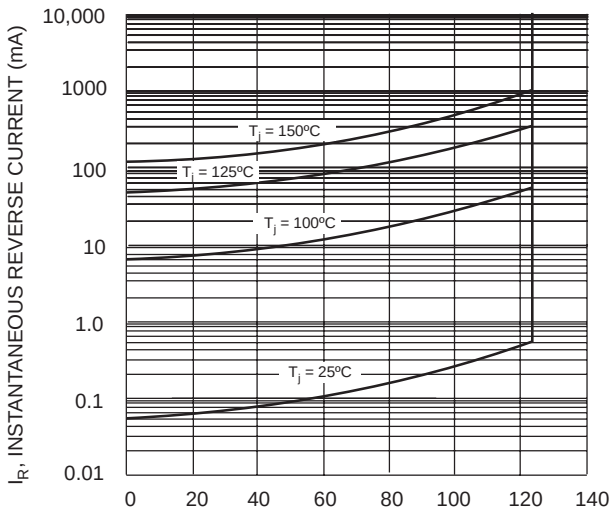
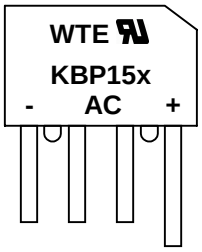


Fig. 5 Typical Reverse Characteristics

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.

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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We power your everyday.

