

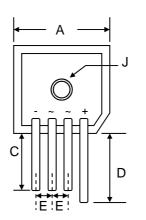
# 15A SINGLE-PHASE BRIDGE RECTIFIER

#### **Features**

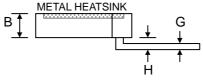
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Designed for Saving Mounting Space
- Recognized File # E157705

# **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			
Α	28.40	28.70			
В	10.97	11.23			
С	_	21.00			
D	_	25.00			
Е	5.10	_			
G	1.20 Ø Typical				
Н	3.05	3.60			
J	5.08 Ø Nominal				
All Dimensions in mm					



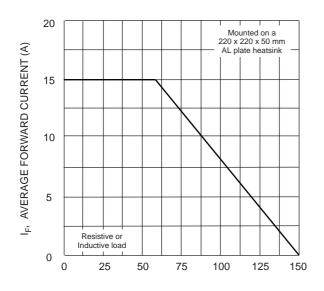
## Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

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

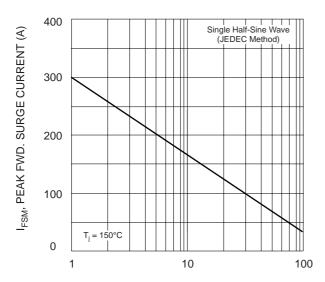
Characteristic	Symbol	KBPC15								Unit		
Characteristic	Symbol	00S	01S	02S	04S	06S	08S	10S	12S	148	16S	Oilit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	50	100	200	400	600	800	1000	1200	1400	1600	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	840	980	1120	V
Average Rectified Output Current @T <sub>A</sub> = 60°C	lo	15						Α				
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	300							А			
Forward Voltage per leg @I <sub>F</sub> = 7.5A	VFM	1.1							V			
Peak Reverse Current $@T_C = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_C = 125^{\circ}C$	lгм	10 500						μΑ				
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	l <sup>2</sup> t	373							A <sup>2</sup> s			
Typical Junction Capacitance (Note 1)	Cj	200							pF			
Typical Thermal Resistance per leg (Note 2)	R⊕JC	2.6							°C/W			
RMS Isolation Voltage from Case to Leads	Viso	2500						V				
Operating and Storage Temperature Range	Tj, Tstg	-65 to +150						°C				

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

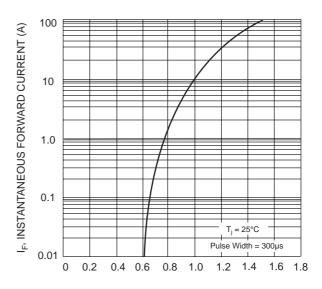
2. Thermal resistance junction to case, mounted on heatsink.



 ${\rm T_A}, {\rm AMBIENT\ TEMPERATURE\ (^\circ C)}$  Fig. 1 Forward. Current Derating Curve



NUMBER OF CYCLES AT 60 Hz Fig. 3 Max Non-Repetitive Surge Current



 $\rm V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics (per element)

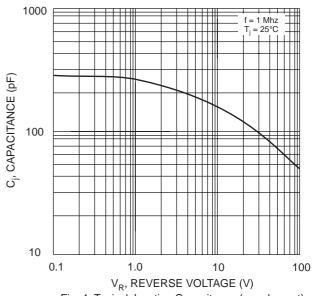
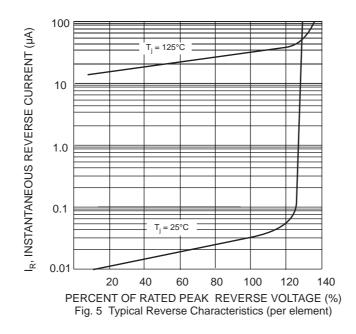


Fig. 4 Typical Junction Capacitance (per element)



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## MARKING INFORMATION

WTE NAME OF THE PROPERTY OF TH

WTE = Manufacturer's Logo KBPC15xxS = 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	Quantity	Carton Size	Quantity	Approx. Gross Weight (KG)
L x W x H (mm)	(PCS)	L x W x H (mm)	(PCS)	
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
KBPC1500S	SIL Bridge	78 Units/Box
KBPC1501S	SIL Bridge	78 Units/Box
KBPC1502S	SIL Bridge	78 Units/Box
KBPC1504S	SIL Bridge	78 Units/Box
KBPC1506S	SIL Bridge	78 Units/Box
KBPC1508S	SIL Bridge	78 Units/Box
KBPC1510S	SIL Bridge	78 Units/Box
KBPC1512S	SIL Bridge	78 Units/Box
KBPC1514S	SIL Bridge	78 Units/Box
KBPC1516S	SIL Bridge	78 Units/Box

- Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
- To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBPC1500S-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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