


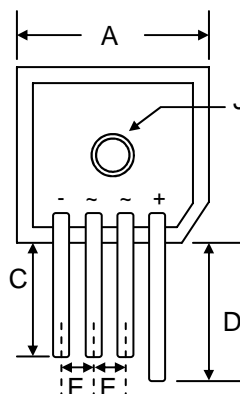
50A HIGH CURRENT SINGLE-PHASE BRIDGE RECTIFIER

Features

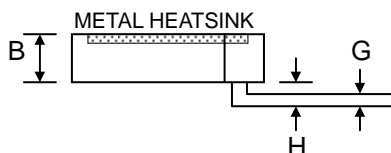
- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Designed for Saving Mounting Space
-  Recognized File # E157705

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
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	KBPC50										Unit
		00S	01S	02S	04S	06S	08S	10S	12S	14S	16S	
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 @TA = 60°C	IO	50										A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	450										A
Forward Voltage per leg @IF = 25A	VFM	1.1										V
Peak Reverse Current @TC = 25°C At Rated DC Blocking Voltage @TC = 125°C	IRM	10 500										µA
I²t Rating for Fusing (t < 8.3ms)	I²t	800										A²s
Typical Junction Capacitance (Note 1)	Cj	400										pF
Typical Thermal Resistance per leg (Note 2)	RθJC	1.6										°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.

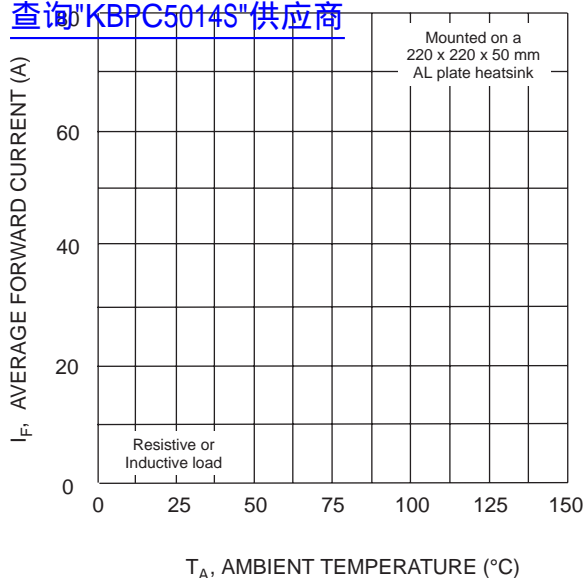


Fig. 1 Forward Current Derating Curve

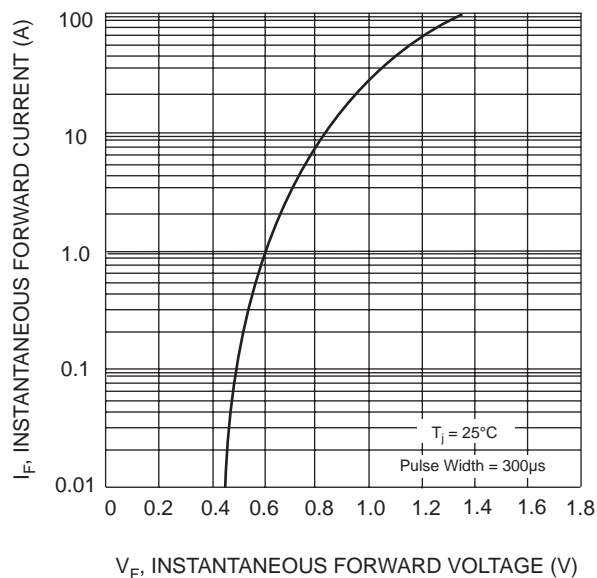


Fig. 2 Typical Forward Characteristics (per element)

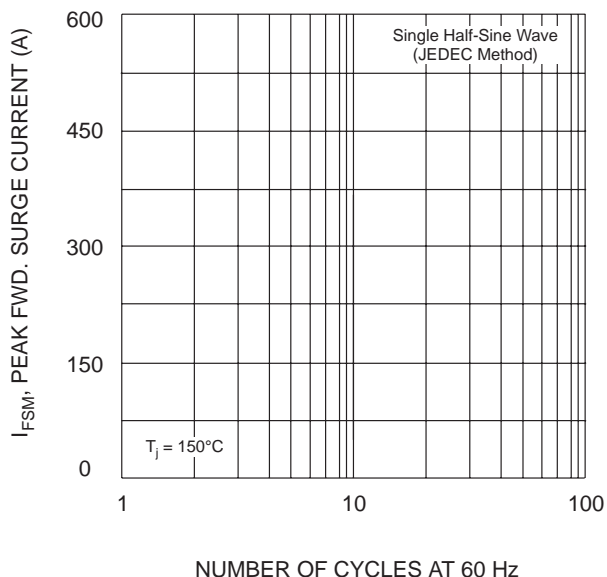


Fig. 3 Max Non-Repetitive Surge Current

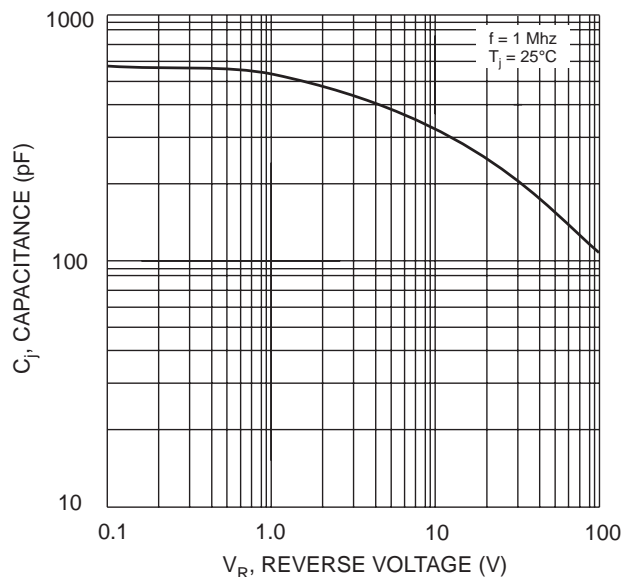


Fig. 4 Typical Junction Capacitance (per element)

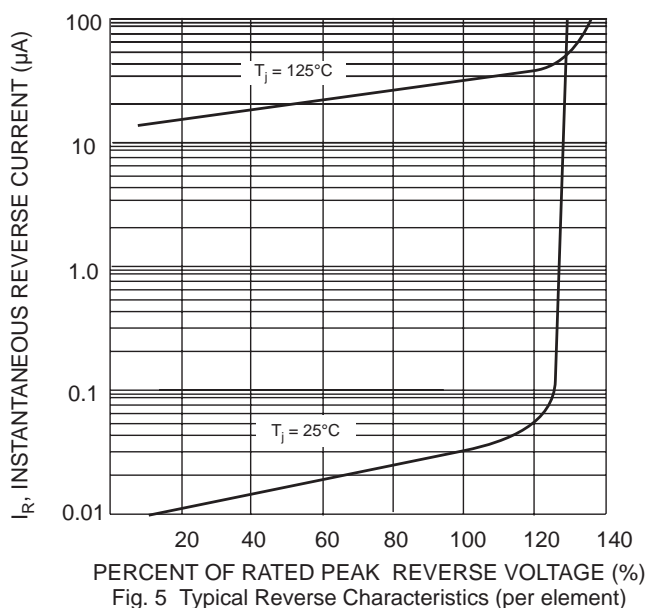
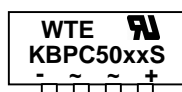


Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION

[查询"KBPC5014S"供应商](#)



WTE = Manufacturer's Logo
KBPC50xxS = 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	80	405 x 205 x 240	800	17.0

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

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC5000S	SIL Bridge	80 Units/Box
KBPC5001S	SIL Bridge	80 Units/Box
KBPC5002S	SIL Bridge	80 Units/Box
KBPC5004S	SIL Bridge	80 Units/Box
KBPC5006S	SIL Bridge	80 Units/Box
KBPC5008S	SIL Bridge	80 Units/Box
KBPC5010S	SIL Bridge	80 Units/Box
KBPC5012S	SIL Bridge	80 Units/Box
KBPC5014S	SIL Bridge	80 Units/Box
KBPC5016S	SIL Bridge	80 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, KBPC5000S-LF.**

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