

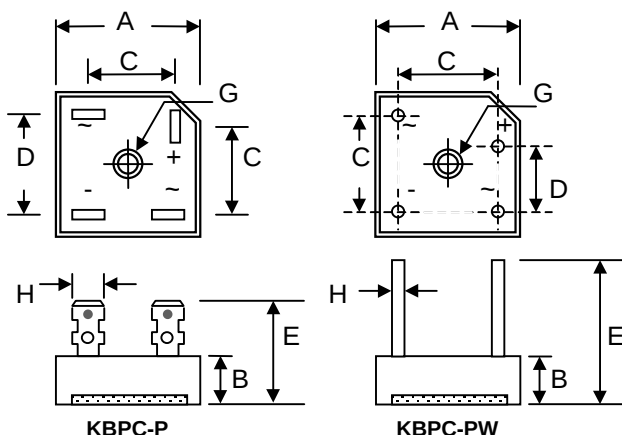
25A SINGLE-PHASE BRIDGE RECTIFIER

Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
-  Recognized File # E157705

Mechanical Data

- Case: Molded Plastic with Heatsink, Available in Both Low Profile and Standard Case
- Terminals: Plated Faston Lugs or Wire Leads, Add "W" Suffix to Indicate Wire Leads
- Polarity: As Marked on Case
- Mounting: Through Hole with #10 Screw
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Weight: 21 grams (KBPC-P); 18 grams (KBPC-PW)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



	KBPC-P Low Profile / Standard		KBPC-PW Low Profile / Standard	
Dim	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	7.50 / 10.97	8.50 / 11.23	7.50 / 10.97	8.50 / 11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.50 / 22.86	23.50 / 25.40	30.50	—
G	Hole for #10 screw, 5.08Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø
All Dimension 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	KBPC25										Unit
		00P	01P	02P	04P	06P	08P	10P	12P	14P	16P	
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	25										A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	300										A
Forward Voltage per leg @I _F = 12.5A	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	373										A ² s
Typical Junction Capacitance (Note 1)	C _j	300										pF
Typical Thermal Resistance per leg (Note 2)	R _{θJC}	2.6										°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.

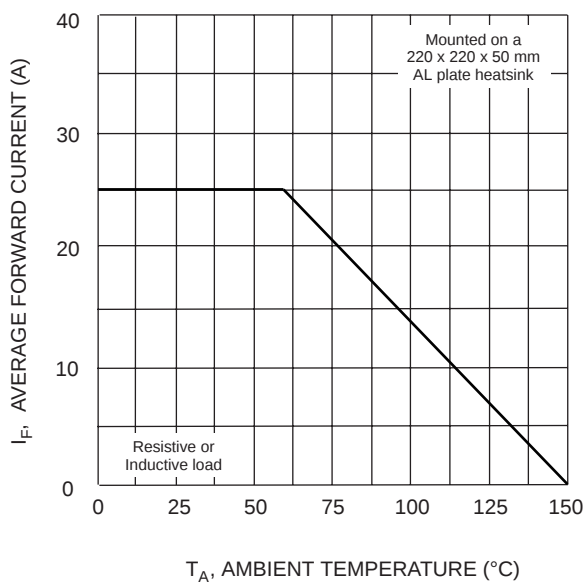


Fig. 1 Forward Current Derating Curve

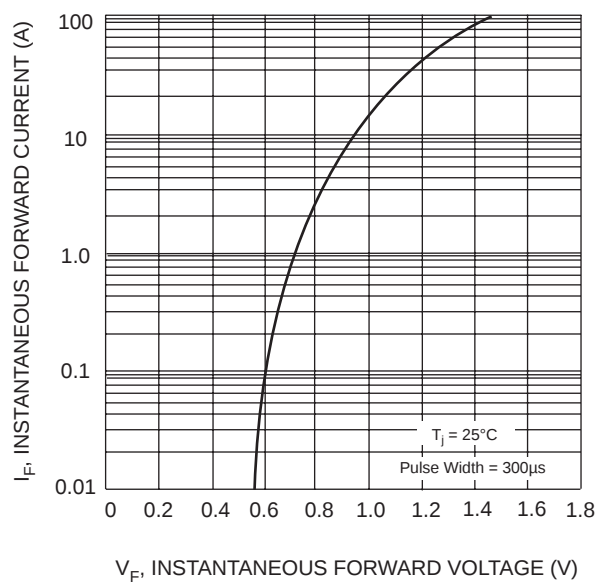


Fig. 2 Typical Forward Characteristics (per element)

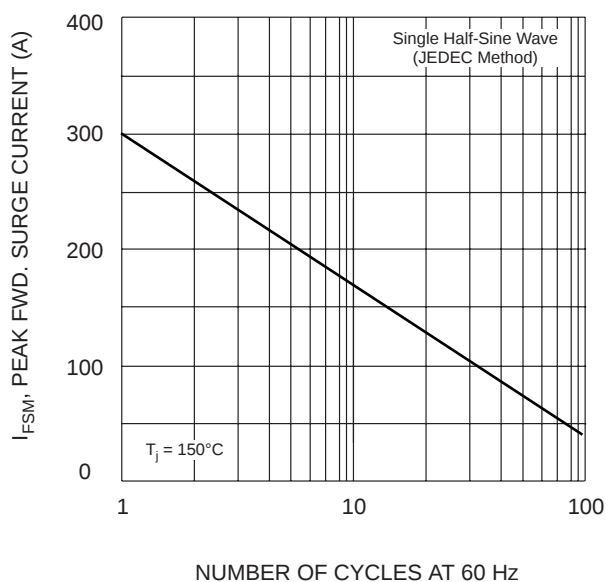


Fig. 3 Max Non-Repetitive Surge Current

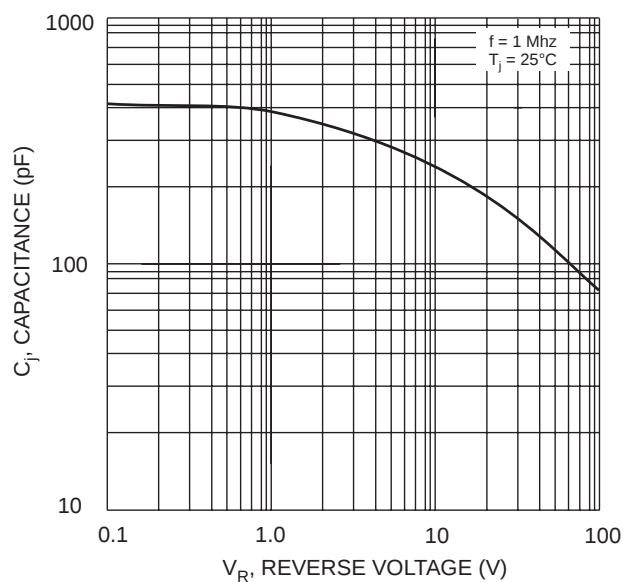


Fig. 4 Typical Junction Capacitance (per element)

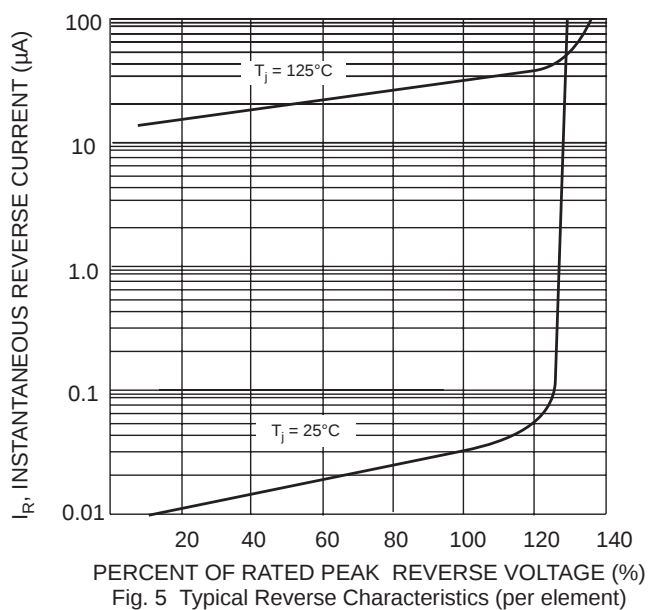
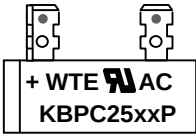
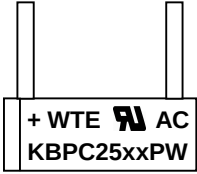


Fig. 5 Typical Reverse Characteristics (per element)

MARKING INFORMATION

KBPC-P  WTE = Manufacturer's Logo KBPC25xxP = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body	KBPC-PW  WTE = Manufacturer's Logo KBPC25xxPW = Device Number xx = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16 Polarity = As Marked on Body
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PACKAGING INFORMATION

BULK					
Case Style	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)
KBPC-P	195 x 195 x 40	50	405 x 205 x 240	500	12.0
KBPC-PW	195 x 195 x 40	50	405 x 205 x 240	500	11.0
Note: 1. Paper box, white or brown color.					

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBPC2500P	Square Bridge	50 Units/Box
KBPC2500PW	Square Bridge	50 Units/Box
KBPC2501P	Square Bridge	50 Units/Box
KBPC2501PW	Square Bridge	50 Units/Box
KBPC2502P	Square Bridge	50 Units/Box
KBPC2502PW	Square Bridge	50 Units/Box
KBPC2504P	Square Bridge	50 Units/Box
KBPC2504PW	Square Bridge	50 Units/Box
KBPC2506P	Square Bridge	50 Units/Box
KBPC2506PW	Square Bridge	50 Units/Box
KBPC2508P	Square Bridge	50 Units/Box
KBPC2508PW	Square Bridge	50 Units/Box
KBPC2510P	Square Bridge	50 Units/Box
KBPC2510PW	Square Bridge	50 Units/Box
KBPC2512P	Square Bridge	50 Units/Box
KBPC2512PW	Square Bridge	50 Units/Box
KBPC2514P	Square Bridge	50 Units/Box
KBPC2514PW	Square Bridge	50 Units/Box
KBPC2516P	Square Bridge	50 Units/Box
KBPC2516PW	Square Bridge	50 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, KBPC2500P-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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