

6A HIGH CURRENT SINGLE-PHASE SILICON BRIDGE RECTIFIER

Voltage - 100 to 1000 V

Forward Current – 6 A

FEATURES

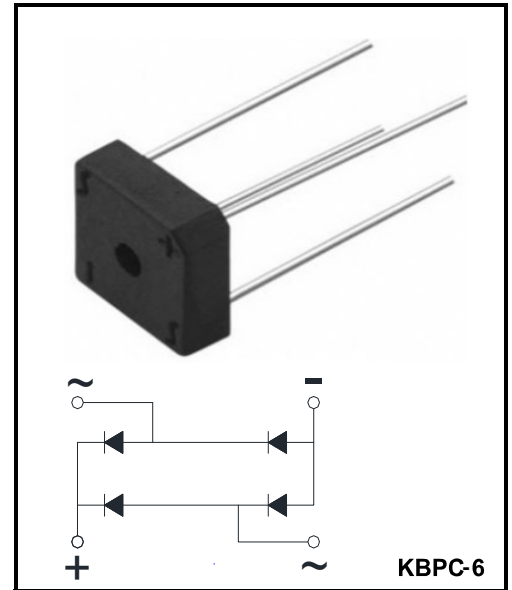
- ◆High temperature metallurgically bonded internal rectifiers
- ◆Typical IR less than .1 uA
- ◆The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- ◆High temperature soldering guaranteed 265 /10 seconds at 5 lbs (2.3kg) tension
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆Case: **KBPC-6**
- ◆Terminals: Solderable per MIL-STD-202, Method 208
- ◆Weight: 3.8 grams (approx)

Maximum Ratings And Electrical Characteristics

Rating at 25 c ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.For Capacitive load derate current by 20%.



Parameter	Symbols	KBPC601	KBPC602	KBPC604	KBPC606	KBPC608	KBPC610	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at TC=75°C(1)	$I_{(AV)}$	6.0						A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	125						A
Rating for fusing (t<8.3ms)	I^2t	10						A ² sec
Typical thermal resistance per element (2)	ReJA	9.4						C / W
Typical junction capacitance per element(3)	Cj	55						pF
Maximum instantaneous forward voltage drop per leg at 3.0A	V_F	1.1						V
Maximum DC reverse current at rated TA=25°C	I_R	10						μA
DC blocking voltage per element TA=100°C		1000						
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						°C

(1) Mounted on metal chassis.

(2) Non-repetitive, for t>1ms and < 8.3ms.

(3) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

Ratings And Characteristic Curves

Fig. 1 Derating Curve for Output Rectified Current

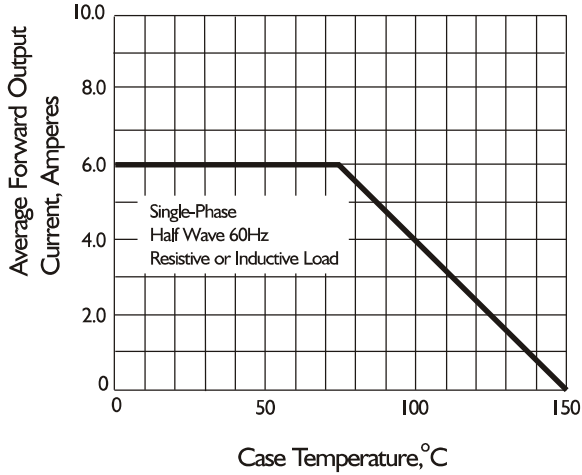


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

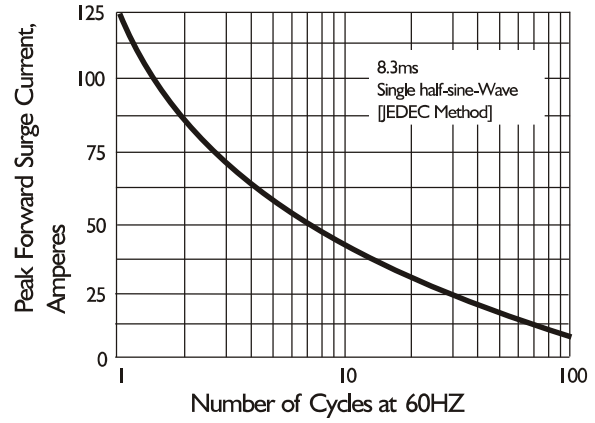


Fig. 3 Typical Instantaneous Forward Characteristics

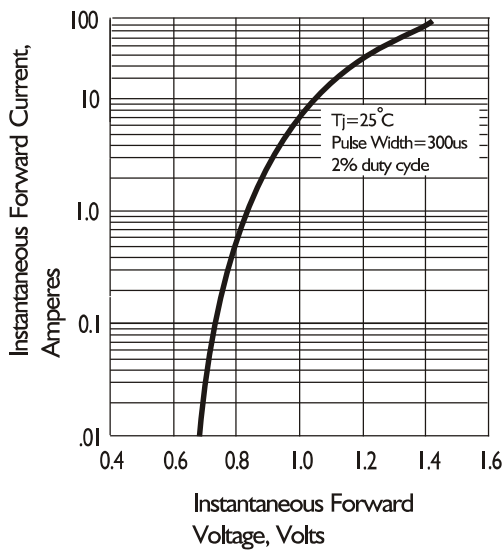
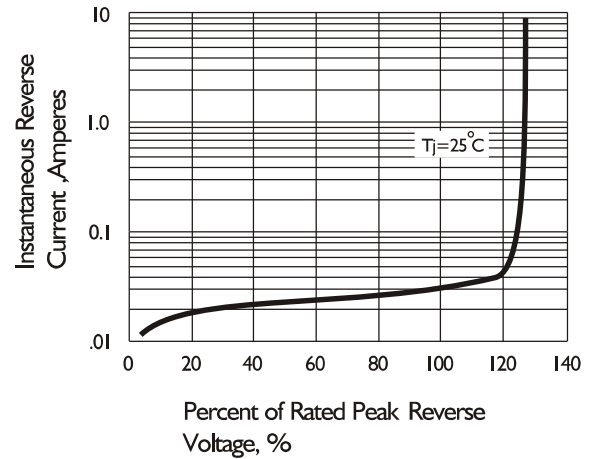
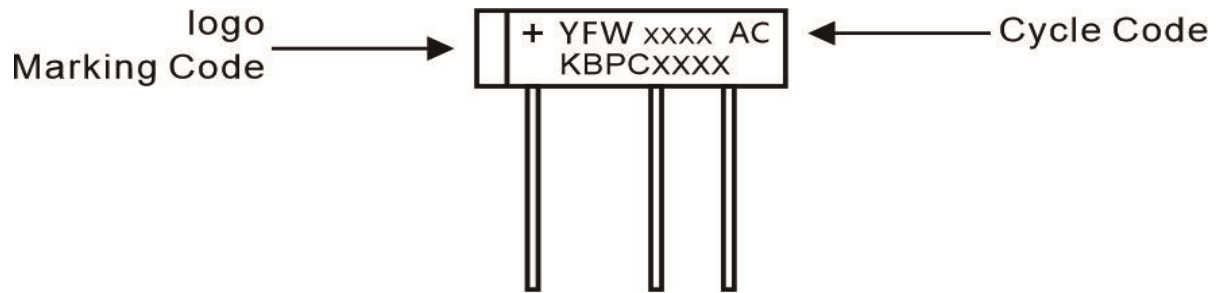


Fig. 4 Typical Reverse Characteristics



Marking Diagram



Ordering information

Package	Packing Description	Packing Quantity
KBPC-6	bulk	200PCS/Box 2000PCS/Carton

Package Dimensions

KBPC-6

Dim.	Millimeter(mm)		Dimensions inInch	
	Min.	Max.	Min.	Max.
A	14.7	15.7	0.579	0.618
B	10.3	11.3	0.406	0.445
C	6.35	7.6	0.250	0.299
D	15.0	-	0.591	-
E	0.95	1.05	0.037	0.041
F	3.8	4.2	0.150	0.165

Disclaimer

The information presented in this document is for reference only. Guangdong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.