

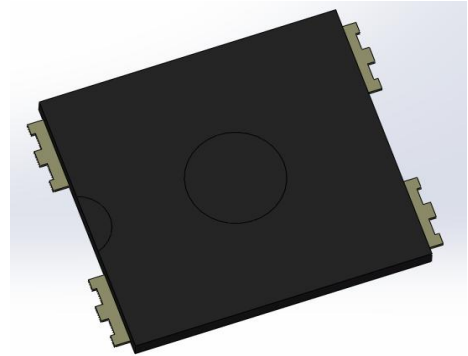
## 6.0 A Single-Phase Glass Passivated Bridge Rectifiers

Rectifier Reverse Voltage 100 to 1000V

### SINGLE PHASE 6.0 AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

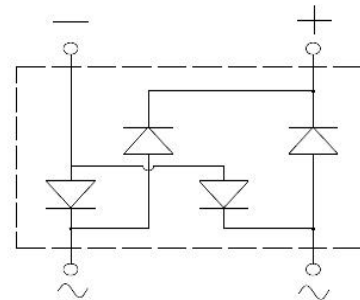
#### Features

- Surface mount bridge, small package;
- Ideal for printed circuit boards;
- Glass passivated chip junction;
- High forward current capability up to 6.0A;
- High surge current capability;
- High heat dissipation capability;
- Low profile package;
- Low forward voltage drop;
- Plastic package has Underwrites Laboratory Flammability Classification 94V-0;



#### Mechanical Data

- Case:KBF  
Epoxy meets UL-94V-0 Flammability rating;
- Terminals:Matte tin plated leads, solderable per J-STD-002 and JESD22-B102;
- High temperature soldering guaranteed:  
Solder Reflow 260°C, 10seconds;
- Polarity: As marked on body;
- Marking: Type number;



#### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	KBF601	KBF602	KBF604	KBF606	KBF608	KBF610	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$							
DC Blocking Voltage	$V_{DC}$							
RMS Reverse Voltage	$V_{RMS}$	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@ $T_C=100^\circ C$	$I_F(AV)$	6.0						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	180						A
$I^2t$ Rating for Fusing (t < 8.3ms)	$I^2t$	134						A <sup>2</sup> s
Forward Voltage per element @ $I_F=3.0A$ @ $I_F=6.0A$	$V_{FM}$	0.95 1.0						V
Peak Reverse Current @ $T_J=25^\circ C$ At Rated DC Blocking Voltage @ $T_J=125^\circ C$	$I_R$	5.0 100						uA
Typical Junction Capacitance (Note 2)	$C_J$	45						pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	75						°C/W
	$R_{\theta JC}$	13						
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55to+150						°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm solder pad.

2. Measured at 1.0 MHz and applied reverse voltage<sup>2</sup> of 4.0V D.C.

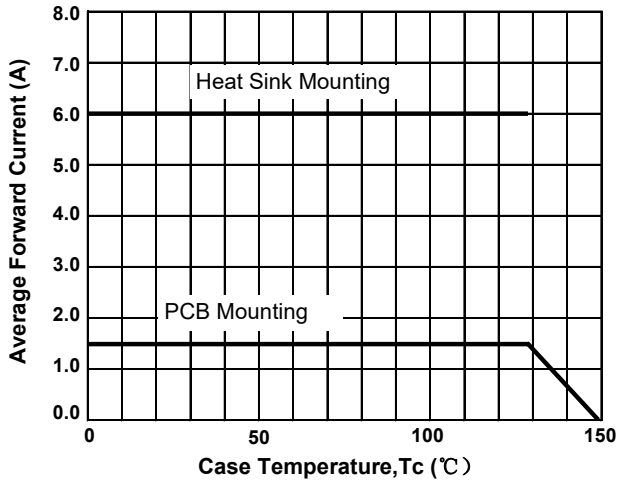
3. Mounted on 15 mm\*12 mm\*1.6mmAL pad attach 195 mm\*110 mm\*10 mm steel plate

**6.0 A Single-Phase Glass Passivated Bridge Rectifiers**

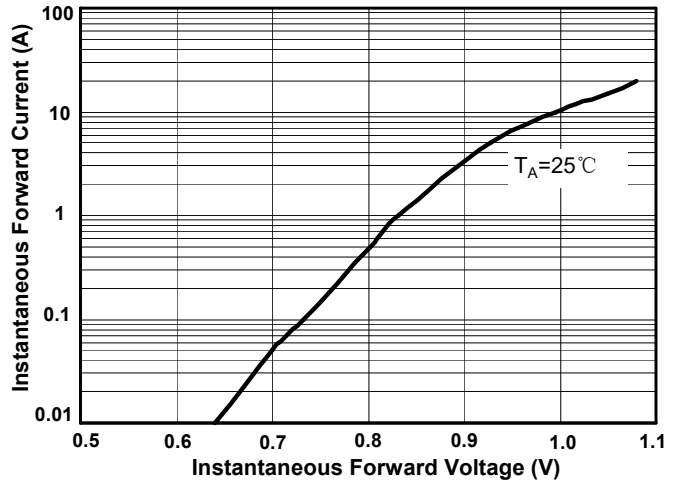
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■ **Characteristics(Typical)**

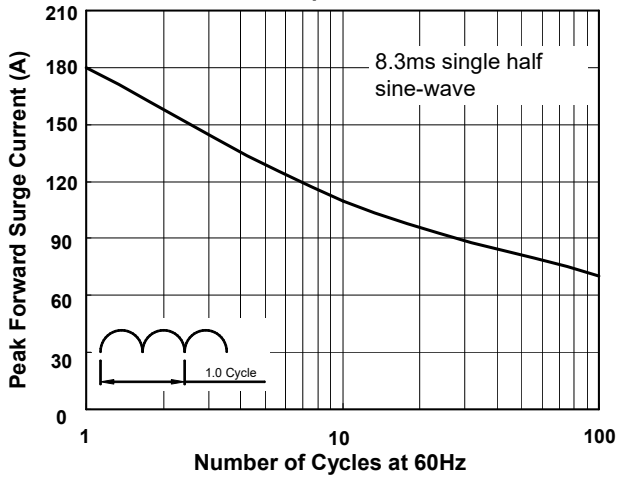
**FIG.1 Derating Curve Output Rectified Current**



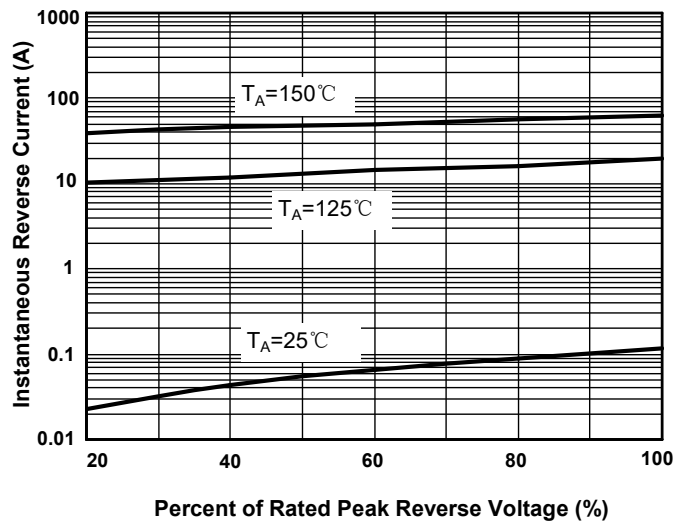
**FIG.2 Typical Forward Characteristics per Diode**



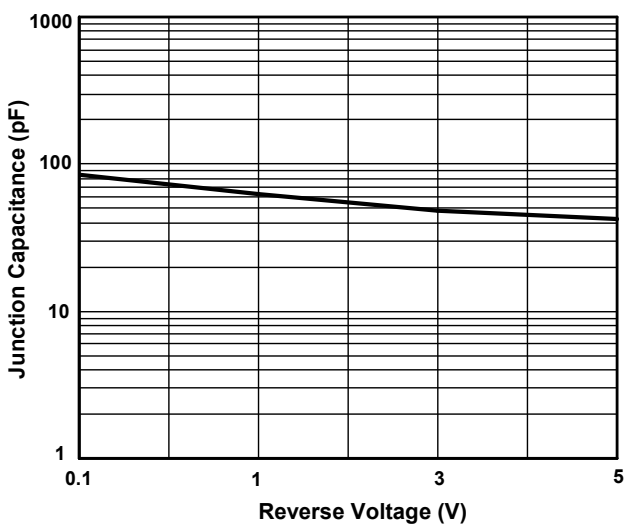
**FIG.3 Maximum Non-Repetitive Peak Forward Surge Current per Diode**



**FIG.4 Typical Reverse Characteristics per Diode**



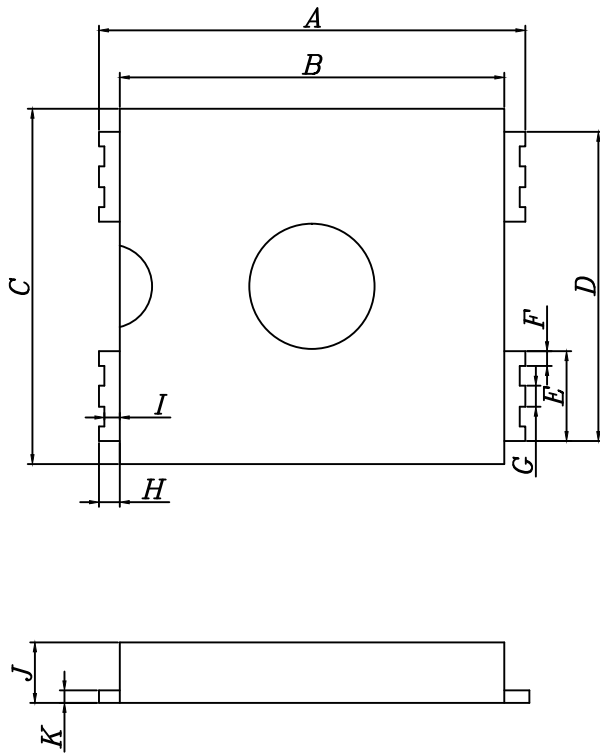
**FIG.5 Typical Junction Capacitance per Diode**



**6.0 A Single-Phase Glass Passivated Bridge Rectifiers**

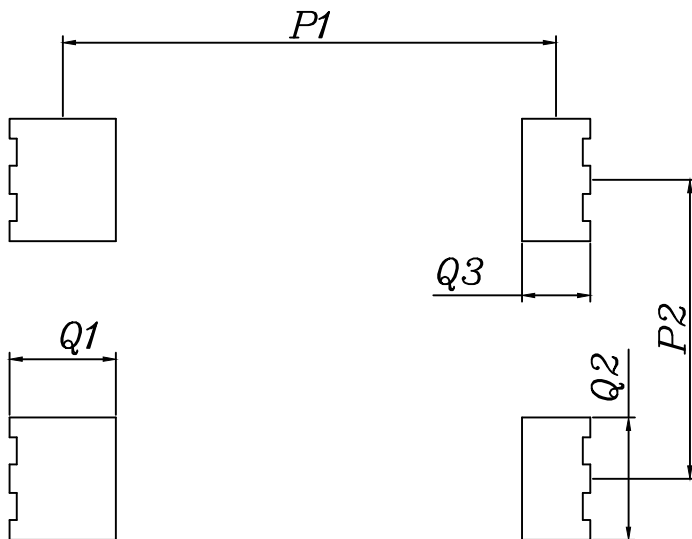
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■ **Outline Dimensions**



KBF		
DIM	MIN	MAX
A	10.5	10.9
B	9.10	9.50
C	8.40	8.80
D	7.20	7.60
E	2.00	2.30
F	0.20	0.50
G	0.35	0.65
H	0.55	0.85
I	0.42	0.72
J	1.40	1.80
K	0.20	0.40
所有尺寸单位为毫米		

■ **Suggested pad layout**



KBF		
DIM	MIN	MAX
P1	9.1	9.5
P2	4.8	5.2
Q1	1.8	2.0
Q2	2.0	2.3
Q3	1.1	1.4
所有尺寸单位为毫米		