

Data Sheet 1338 Rev.—

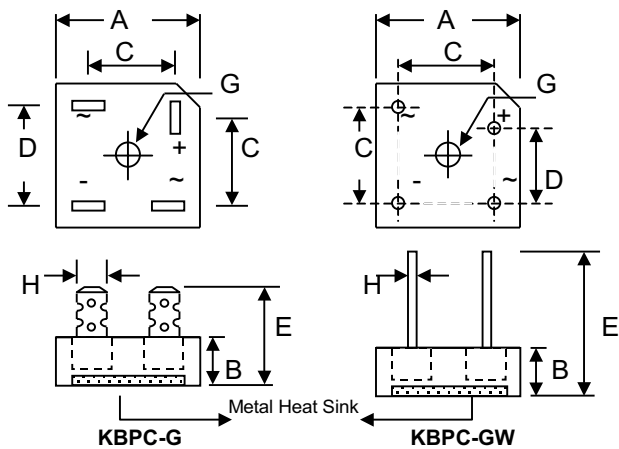
**Features**

- Glass Passivated Die Construction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Electrically Isolated Epoxy Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V

**Mechanical Data**

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Symbols Marked on Case
- Mounting: Through Hole for #8 Screw
- Weight: KBPC-G 24 grams (approx.)  
KBPC-GW 21 grams (approx.)
- Marking: Type Number

"W" Suffix Designates Wire Leads  
No Suffix Designates Faston Terminals  
\*All Models are Available on B(Height)=7.62mm Max. Epoxy Case



Dim	KBPC-G		KBPC-GW	
	Min	Max	Min	Max
A	28.40	28.70	28.40	28.70
B	10.97	11.23	10.97	11.23
C	15.70	16.70	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.86	25.40	30.50	—
G	Hole for #8 screw, 4.90Ø Nominal			
H	6.35 Typical		0.97Ø	1.07Ø
All Dimension in mm				

**Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified**

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

Characteristics	Symbol	-00G/W	-01G/W	-02G/W	-04G/W	-06G/W	-08G/W	-10G/W	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V <sub>VRM</sub>								
DC Blocking Voltage	V <sub>R</sub>								
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectifier Output Current @T <sub>C</sub> = 55°C	I <sub>O</sub>				15				A
					25				
					35				
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>				300				A
					300				
					400				
Forward Voltage Drop (per element)	V <sub>FM</sub>				1.1				V
Peak Reverse Current At Rated DC Blocking Voltage	I <sub>RM</sub>				5.0				µA
					500				
I <sup>2</sup> t Rating for Fusing (t < 8.3ms) (Note 1)	I <sup>2</sup> t				375				A <sup>2</sup> s
					375				
					660				

## Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Typical Junction Capacitance (per element) (Note 2)	$C_j$	300	pF
Typical Thermal Resistance Junction to Case (per element) (Note 3)	$R_{\theta JC}$	5.3	K/W
KBPC15		3.6	
KBPC25		3.0	
KBPC35			
RMS Isolation Voltage from Case to Lead	VISO	2500	V
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150	$^{\circ}\text{C}$

- Note: 1. Measured at non-repetitive, for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 3. Thermal resistance junction to case mounted on heatsink.

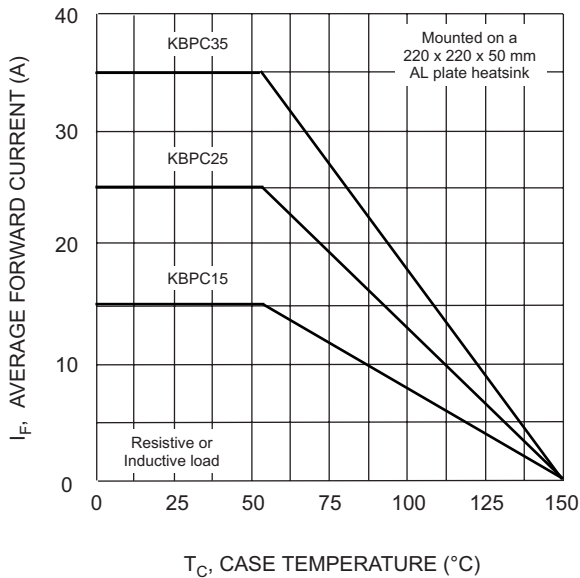


Fig. 1 Forward Current Derating Curve

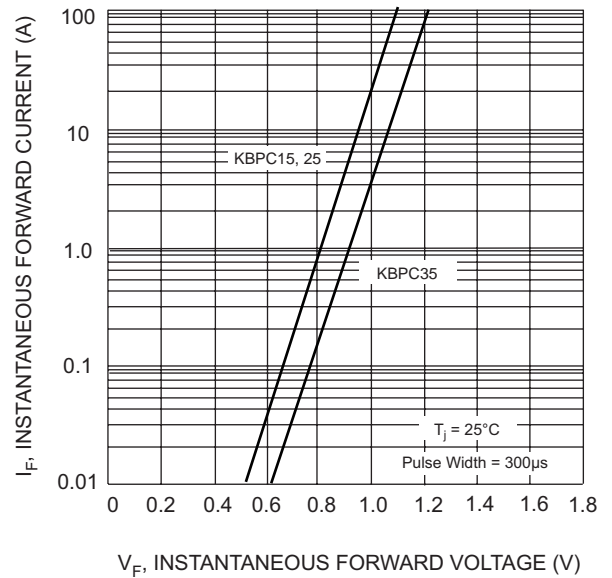


Fig. 2 Typical Forward Characteristics (per element)

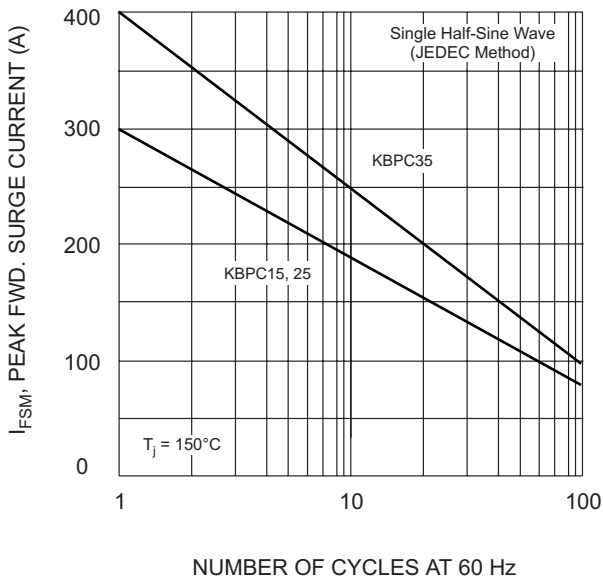


Fig. 3 Max Non-Repetitive Surge Current

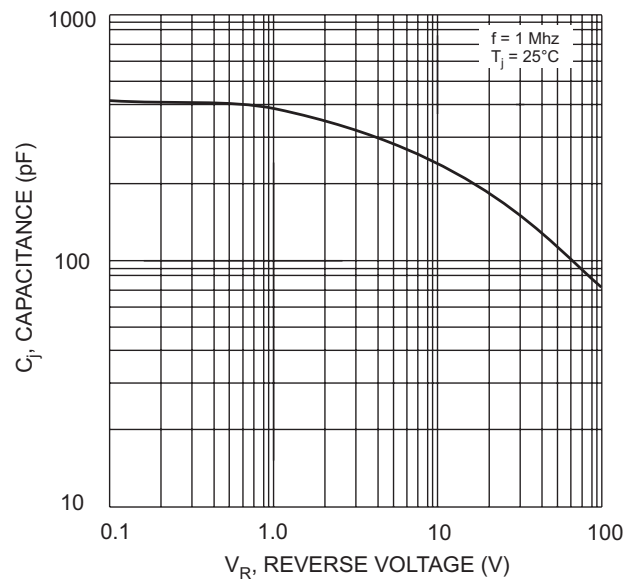


Fig. 4 Typical Junction Capacitance (per element)

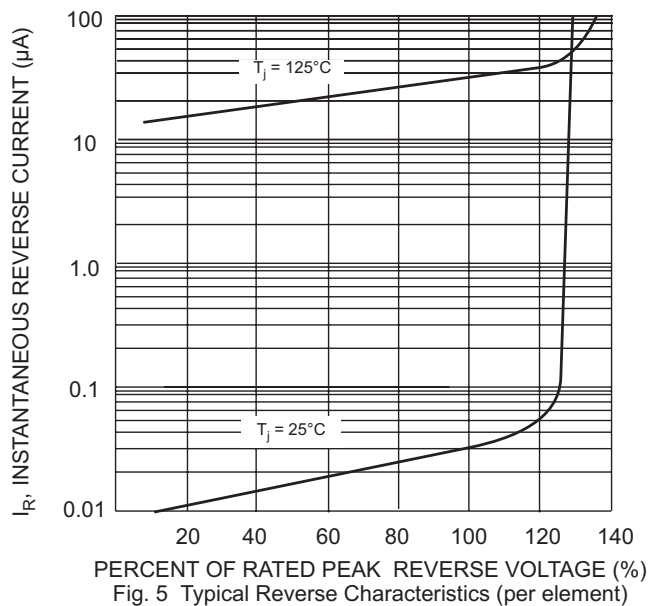


Fig. 5 Typical Reverse Characteristics (per element)