

KBPC40005/W THRU KBPC4010/W

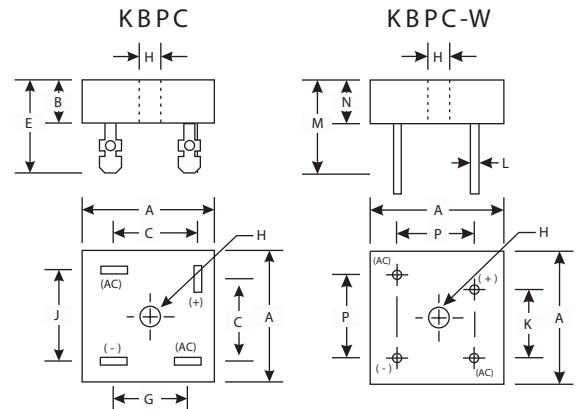
CURRENT 40.0 Amperes
VOLTAGE 50 to 1000 Volts

Features

- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Surge Overload Rating to 400A Peak
- Electrically Isolated Metal Case for Maximum Heat Dissipation
- High Case Dielectric Strength of 1500V_{RMS}

Mechanical Data

- Case : High Conductivity Metal
- Terminals : Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity : Symbols Marked on Case
- Mounting : Through Hole for #10 Screw
- Mounting Torque : 8.0 Inch-pounds Maximum
- Weight : KBPC 31.6 grams (approx.)
KBPC-W 28.5 grams (approx.)
- Mounting Position : Any
- Marking : Type Number



KBPC / KBPC-W					
Dim	Min	Max	Dim	Min	Max
A	28.40	28.70	J	17.10	19.10
B	10.97	11.23	K	10.40	12.40
C	15.50	17.60	L	0.97 ϕ	1.07 ϕ
E	22.86	25.40	M	30.50	—
G	13.30	15.30	N	10.97	11.23
H	Hole for #10 screw		P	17.10	19.10
	4.85 ϕ	5.59 ϕ			
All Dimensions in mm					

"W" Suffix Designates Wire Leads
No Suffix Designates Fast-on Terminals

Maximum Ratings And Electrical Characteristics

(Ratings at 25 °C ambient temperature unless otherwise specified, Single phase, half wave 60Hz, resistive or inductive load. For capacitive load, derate by 20%)

	Symbols	KBPC40005/W	KBPC4001/W	KBPC4002/W	KBPC4004/W	KBPC4006/W	KBPC4008/W	KBPC4010/W	Units
Peak Repetitive Reverse voltage	V _{RMM}								
Working Peak Reverse voltage	V _{RWM}	50	100	200	400	600	800	1000	Volts
DC Blocking voltage	V _R								
RMS Reverse voltage	V _{R(RMS)}	35	70	140	280	420	560	700	Volts
Average Rectified Output Current @ T _C =55 °C	I _O	40							Amps
Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	500							Amps
Forward voltage (per element) @ I _F =20 A	V _{FM}	1.2							Volts
Peak Reverse Current at Rated DC Blocking voltage	@ T _C =25 °C	10							μ A
	@ T _C =125 °C	1.0							mA
I ² t Rating for Fusing (t<8.3ms) (Note 2)	I ² t	800							A ² s
Typical Junction Capacitance (Note 3)	C _J	300							pF
Typical Thermal Resistance Junction to Case	R θ JA	1.5							°C/W
Operating and Storage Temperature Range	T _J T _{STG}	-50 to +150							°C

Notes:

- (1) Thermal resistance junction to case mounted on heat sink.
- (2) Measured at non-repetitive, for t > 1.0ms and < 8.3ms.
- (3) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

RATINGS AND CHARACTERISTIC CURVES KBPC40005/W THRU KBPC4010/W

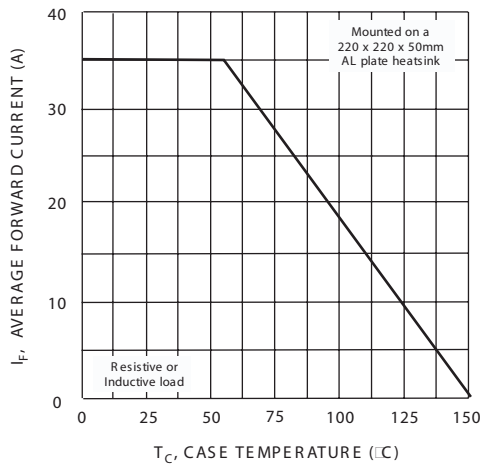


Fig. 1 Forward Current Derating Curve.

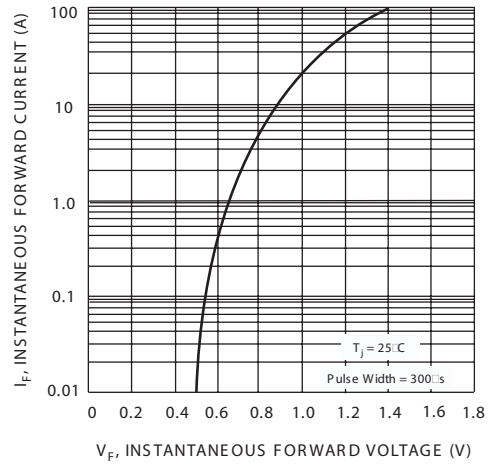


Fig. 2 Typical Forward Characteristics (per element)

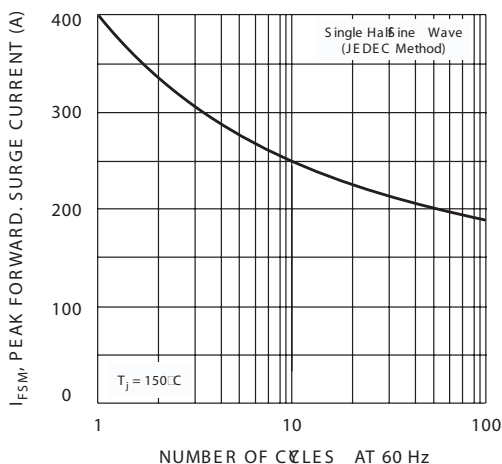


Fig. 3 Maximum NonRepetitive Surge Current

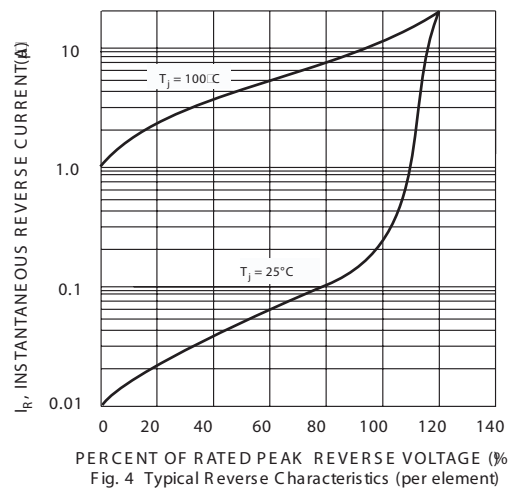


Fig. 4 Typical Reverse Characteristics (per element)