

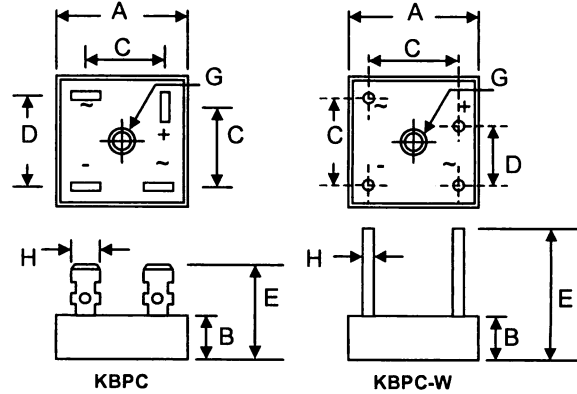


KBPC35 SERIES

35A SINGLE-PHASE BRIDGE RECTIFIER

Features

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



Mechanical Data

- Case: KBPC (Metal Case with Faston Lugs) or KBPC-W (Metal Case with Wire Leads)
- 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: 30 grams (KBPC); 28 grams (KBPC-W)
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "LF" Suffix to Date Code**

Dim	KBPC		KBPC-W	
	Min	Max	Min	Max
A	27.94	28.96	27.94	28.96
B	10.97	11.23	10.97	11.23
C	15.50	17.60	17.10	19.10
D	17.50	18.50	10.90	11.90
E	22.86	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 @ $T_A=25^\circ\text{C}$ unless otherwise specified

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

Characteristic	Symbol	KBPC35										Unit
		05	01	02	04	06	08	10	12	14	16	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	VRRM VRWM VR	50	100	200	400	600	800	1000	1200	1400	1600	V
RMS Reverse Voltage	VR(RMS)	35	70	140	280	420	560	700	840	980	1120	V
Average Rectified Output Current @ $T_A = 60^\circ\text{C}$	IO	35										A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	400										A
Forward Voltage per leg @ $I_F = 17.5\text{A}$	VFM	1.2										V
Peak Reverse Current @ $T_C = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_C = 125^\circ\text{C}$	IRM	10 1.0										μA mA
I ² t Rating for Fusing (t < 8.3ms)	I ² t	664										A ² s
Typical Junction Capacitance (Note 1)	Cj	300										pF
Typical Thermal Resistance per leg (Note 2)	R θ JC	2.1										$^\circ\text{C}/\text{W}$
RMS Isolation Voltage from Case to Leads	VISO	2500										V
Operating and Storage Temperature Range	Tj, TSTG	-65 to +150										$^\circ\text{C}$

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.

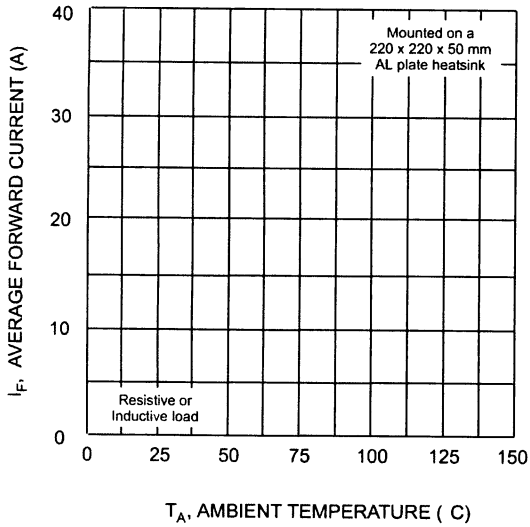


Fig. 1 Forward Current Derating Curve

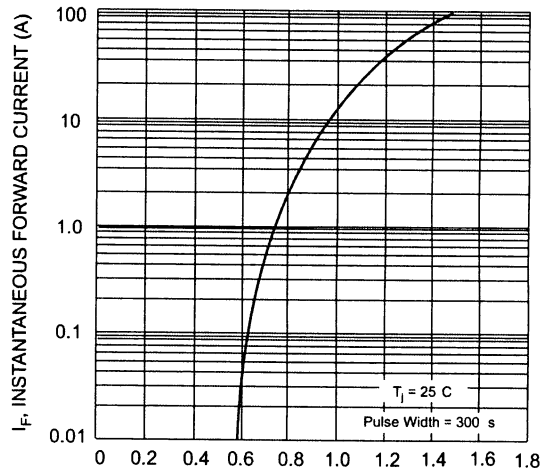


Fig. 2 Typical Forward Characteristics (per element)

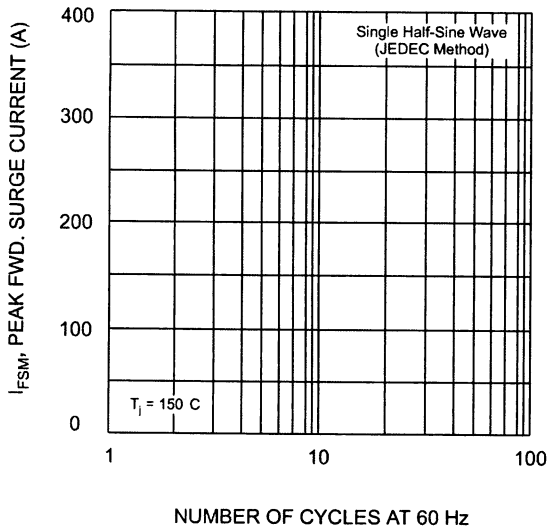


Fig. 3 Max Non-Repetitive Surge Current

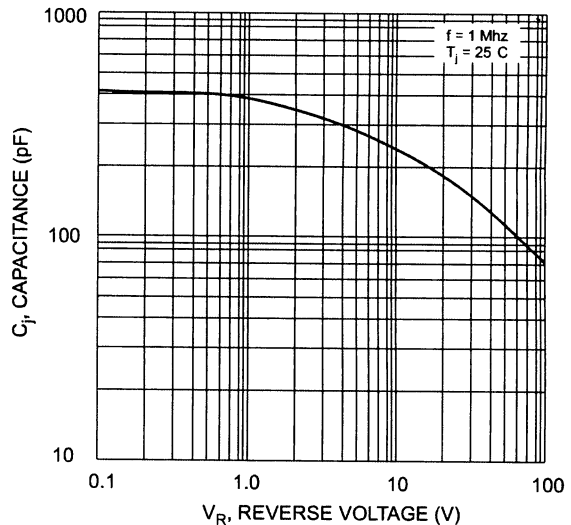


Fig. 4 Typical Junction Capacitance (per element)

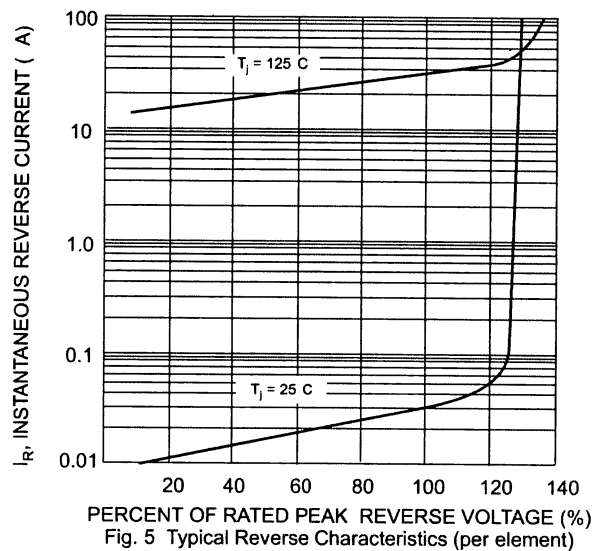


Fig. 5 Typical Reverse Characteristics (per element)