KBPC25005G/GW-KBPC2510G/GW

25A GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass Passivated Die Construction
- Diffused Junction
- Low Reverse Leakage Current
- Low Power Loss, High Efficiency
- Surge Overload Rating to 300A Peak
- Electrically Isolated Metal Case for Maximum Heat Dissipation
- Case to Terminal Isolation Voltage 2500V
- UL Listed Under Recognized Component Index, File Number E95060

KBPC-G

KBPC-GW

KBPCG / KBPC-GW		
Dim	**Min**	**Max**
A	28.40	28.70
B	10.97	11.23
C	15.70	16.70
E	22.86	25.40
G	13.50	14.50
H	Hole for #10 screw	
	5.08 ⌀ Nominal	
J	17.50	18.50
K	10.90	11.90
L	0.97 ⌀ Nominal	
M	30.50	—
N	10.97	11.23
P	17.60	18.60
All Dimensions in mm		

W Suffix Designates Wire Leads
No Suffix Designates Faston Terminals

Mechanical Data

- Case: Molded Epoxy
- 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-G 24 grams (approx)
- KBPC-GW 21 grams (approx)
- Mounting Position: Any
- Marking: Type Number

Maximum Ratings and Electrical Characteristics

@ T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	KBPC25 005G/W	KBPC25 01G/W	KBPC25 02G/W	KBPC25 04G/W	KBPC25 06G/W	KBPC25 08G/W	KBPC25 10G/W	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ T_C = 55°C	I_O	25							A
Non-Repetitive Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300							A
Forward Voltage (per element) @ I_F = 12.5A	V_{FM}	1.1							V
Peak Reverse Current @T_C = 25°C at Rated DC Blocking Voltage @ T_C = 125°C	I_R	5.0 500							μA
I^2t Rating for Fusing (t<8.3ms) (Note 1	I^2t	374							A^2s
Typical Junction Capacitance (Note 2)	C_j	300							pF
Typical Thermal Resistance Junction to Case (Note 3)	$R_{\theta JC}$	3.8							K/W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +150							°C

Notes: 1. Measured at non-repetitive, for t > 1ms and < 8.3ms.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
3. Thermal resistance from junction to case per element mounted on PC board with 13 x 13mm (0.03mm thick) land areas.