KBPC50005 THRU KBPC5010

SINGLE PHASE 50.0 AMP GLASS PASSIVATED BRIDGE RECTIFIER

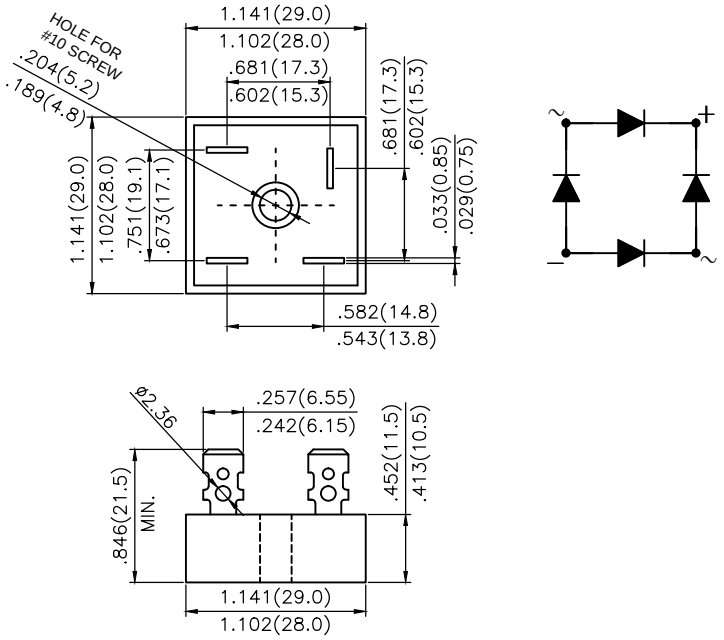
Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

Mechanical Data

- Case: KBPC,Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version

KBPC



dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	KBPC 50005	KBPC 5001	KBPC 5002	KBPC 5004	KBPC 5006	KBPC 5008	KBPC 5010	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@T_C=90℃	IF(AV)	50.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500							A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	1037.5							A^2s
Forward Voltage per element @IF=25.0A	V_{FM}	1.1							V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=125℃	I_R	10.0 500							uA
Typical Junction Capacitance per leg (Note 2)	C_J	300							pF
Typical Thermal Resistance per leg	$R_{\theta JC}$	0.7							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55to+150							℃

Note:1. Mounted on 35mm x 35mm x 17mm Al Plate Heatsink.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

GBPC50005 THRU GBPC5010

Fig. 1 Output Current Derating Curve

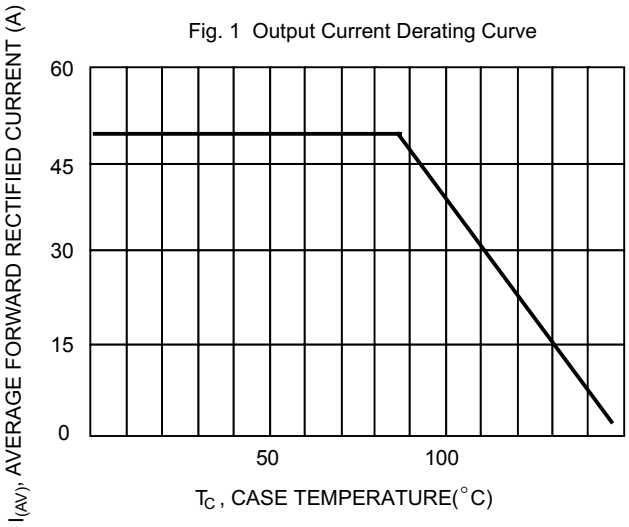


Fig. 2 Typical Forward Characteristics (per leg)

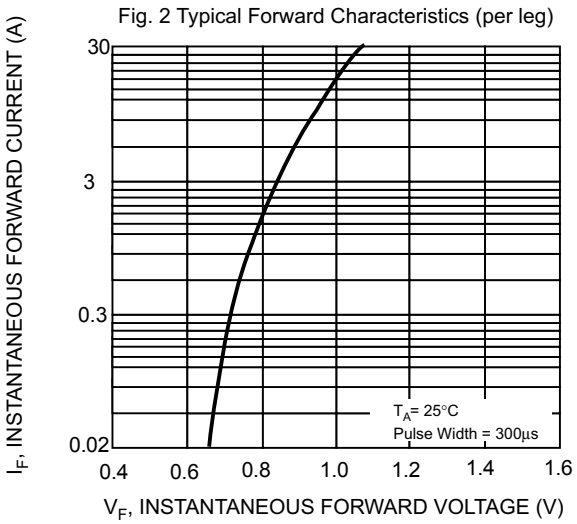


Fig. 3 Maximum Peak Forward Surge Current (per leg)

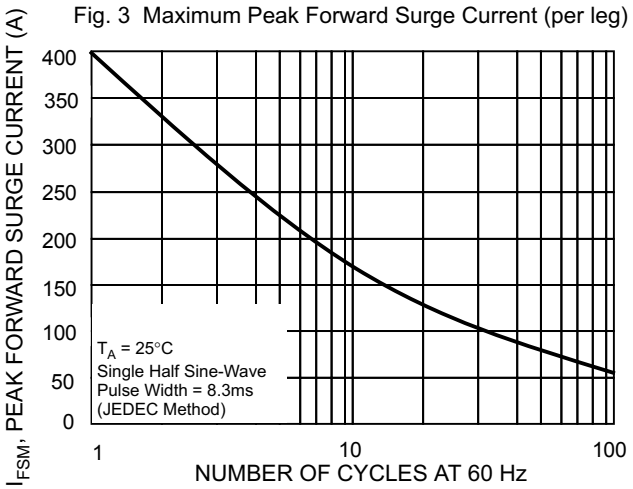
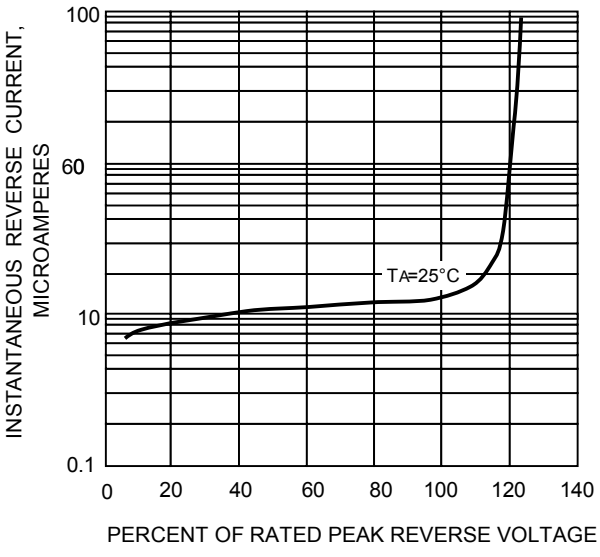


Fig. 4 Typical Junction Capacitance



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