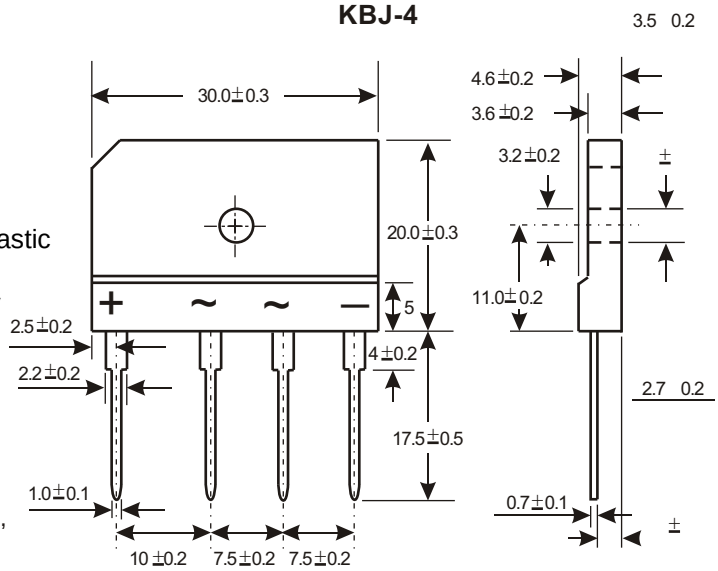
KBJ50005 thru KBJ5010

50.0 A Single-Phase Glass Passivated Bridge Rectifiers

Rectifier Reverse Voltage 50 to 1000V

KBJ-4



Features

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- The plastic material has Underwriters Laboratory flammability classification 94V-0

Mechanical Data

Case: Molded plastic
Terminals: Plated leads solderable per MIL-STD-202, Method 208
Polarity: Marked on body
Mounting Position: Any
Weight: 0.26 ounce, 7.0 grams (approx)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	KBJ 50005	KBJ 5001	KBJ 5002	KBJ 5004	KBJ 5006	KBJ 5008	KBJ 5010	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heat sink[2]) Rectified Current @T_C=100°C (without heat sink)		$I_{(AV)}$	50							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)		I_{FSM}	400							A
Maximum Forward Voltage @ 25A DC		V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_J=25°C	I_R	10.0							μA
	T_J=125°C		500							
I^2t Rating for Fusing (t<8.3ms)		I^2t	660							A^2s
Typical Thermal Resistance [1]		$R_{\theta JC}$	1.5							°C/W
Operating and Storage temperature range		T_J,T_{STG}	-55~150							°C

Notes：

1. Thermal resistance from junction to case with units mounted on heat sink.
2. Device mounted on 300mm*300mm*1.6mm Cu plate heat sink.

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RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

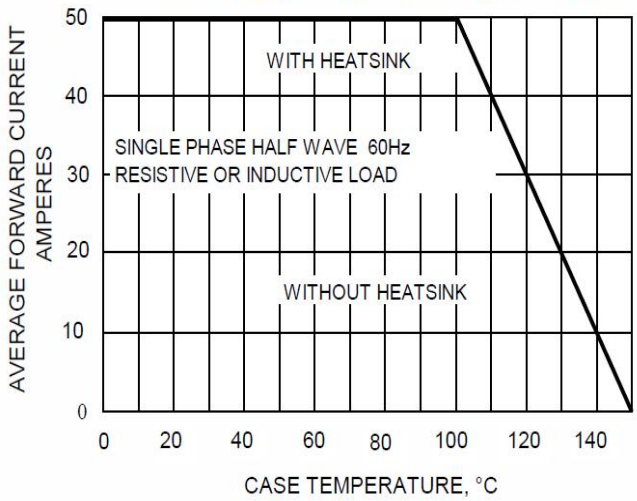

FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

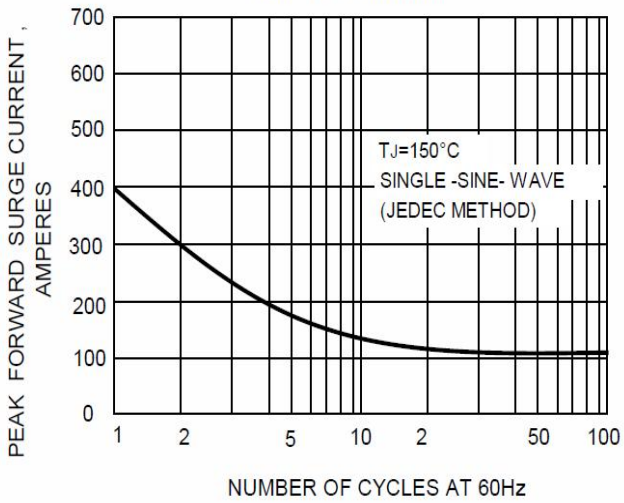

FIG.3-TYPICAL FORWARD CHARACTERISTICS

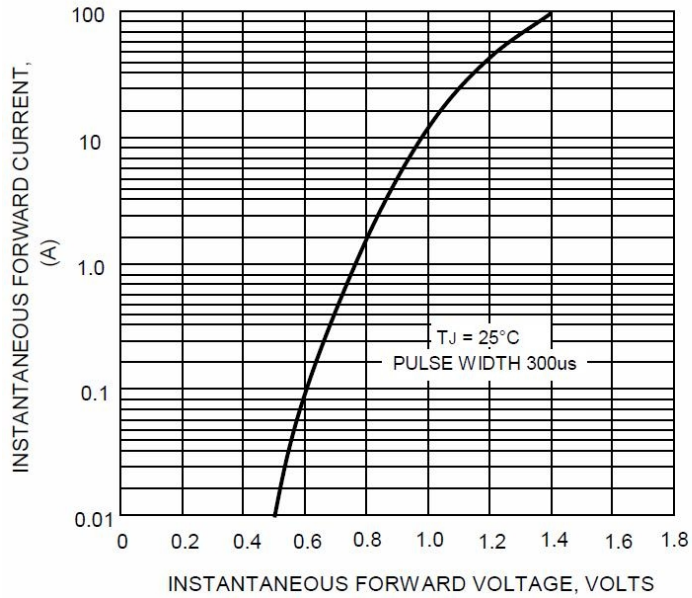

FIG.4-TYPICAL REVERSE CHARACTERISTICS