

CURRENT 50 Ampere
 VOLTAGE RANG 50 to 1000 Volts

KBJ50005 THRU KBJ5010

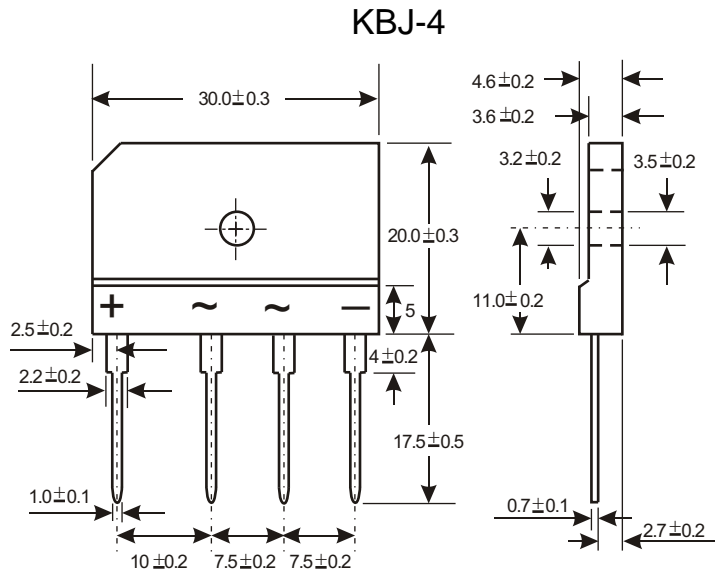


Features

- This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High case dielectric strength of 1500VRMS Ideal for printed circuit boards
- High surge current capability

Mechanical Data

Case : Molded plastic body over passivated junctions
 Terminals : Plated leads solderable per MIL-STD-750, Method 2026
 Polarity : Polarity symbols molded on body
 Mounting Position : Any(3)
 Mounting Torque : 5 in-lbs max.
 Weight : 0.26 ounce, 7.0 grams (approx)



Dimensions in millimeters(1mm = 0.0394")

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)	$I_{(AV)}$	50							A
Rectified Current @ $T_C=100^\circ\text{C}$ (without heat sink)									
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	$T_J=25^\circ\text{C}$	10.0							μA
	$T_J=125^\circ\text{C}$	500							
I^2t Rating for Fusing ($t<8.3\text{ms}$)	I^2t	660							A^2s
Typical Thermal Resistance ¹	$R_{\theta JC}$	1.5							$^\circ\text{C/W}$
Operating and Storage temperature range	T_J, T_{STG}	-55~150							$^\circ\text{C}$

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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Rating and Characteristic Curves ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

FIG.1-FORWARD CURRENT DERATING CURVE

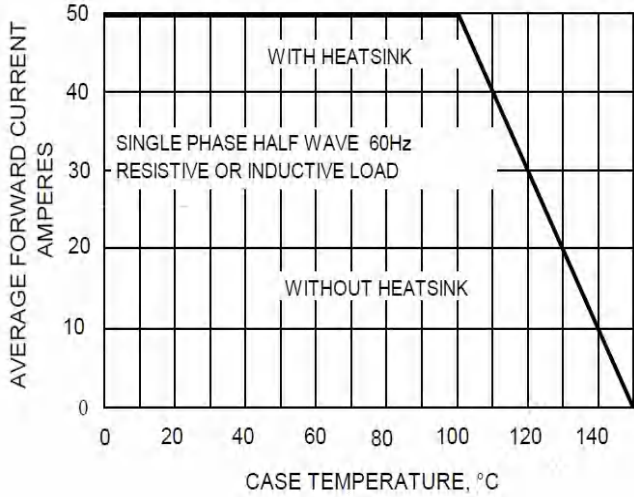


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

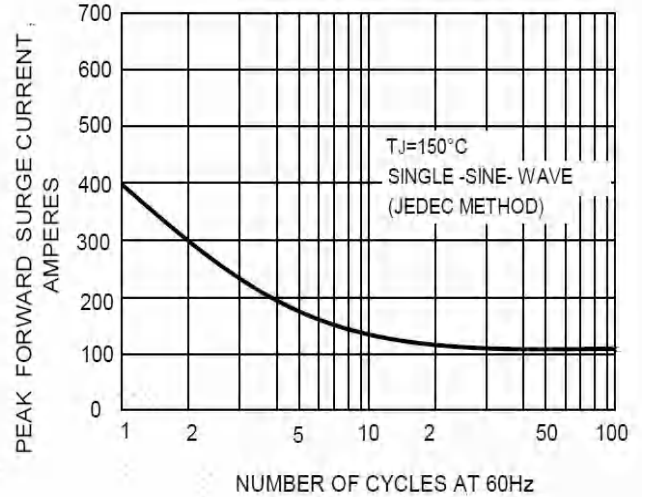


FIG.3-TYPICAL FORWARD CHARACTERISTICS

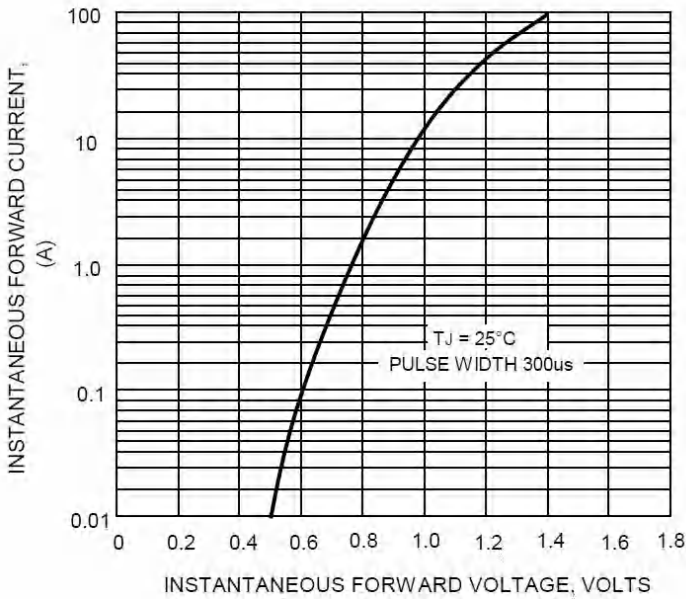


FIG.4-TYPICAL REVERSE CHARACTERISTICS

