

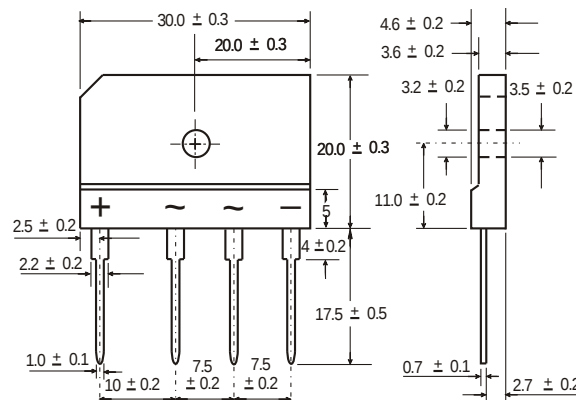
Single-Phase Silicon Bridge Rectifier

Features

- ◆ 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 : JEDEC KBJ Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any(3)

Mounting Torque : 5 in-lbs max.

Weight : 0.26 ounce, 7.0 grams (approx)

Maximum Ratings And Electrical Characteristics

Dimensions in millimeters(1mm = 0.0394")

Rating at 25 °C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz. For Capacitive load derate current by 20%.

Parameter	SYMBOLS	MDD	MDD	MDD	MDD	MDD	MDD	MDD	UNITS
Marking Code		KBJ15005	KBJ1501	KBJ1502	KBJ1504	KBJ1506	KBJ1508	KBJ1510	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS 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 rectified output current Tc =100 C Peak forward surge current	I _(AV)	15							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	240							A
Rating for fusing (t<8.3ms)	I ² t	120							A ² s
Maximum instantaneous forward voltage drop per leg at 7.5A	V _F	1.0							V
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=125°C	I _R	10							μA
		0.5							mA
Maximum thermal resistance per leg	RejA	2.6(2)							°C/W
	RejC	5 (1)							
Operating junction temperature range	T _J	-55 to +150							° C
storage temperature range	T _{STG}	-55 to +150							° C

Notes: (1)Unit case mounted on Al plate heatsink.

(2)Units mounted on P.C.B. with 0.5x0.5"(12x12mm) copper pads and 0.375"(9.5) lead length.

(3)Recommended mounting position is to bolt down on heat sink with silicone thermal compound for maximum heat transfer with #6 screw.

Ratings And Characteristic Curves

(TA = 25 Unless otherwise noted)

Fig.1 Derating Curve for Output Rectified Current

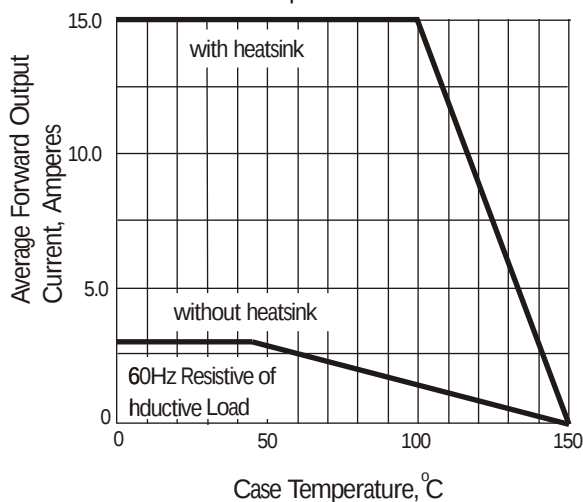


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

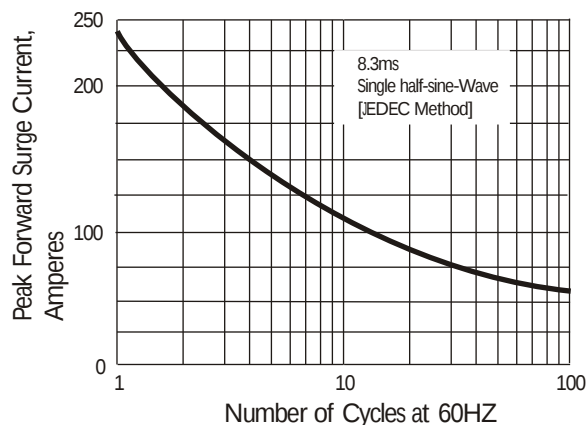


Fig.3 Typical Instantaneous Forward Characteristics

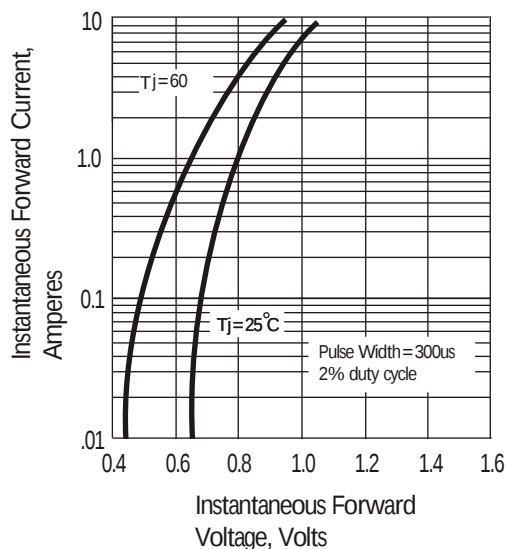


Fig.4 Typical Reverse Characteristics at Tj = 25

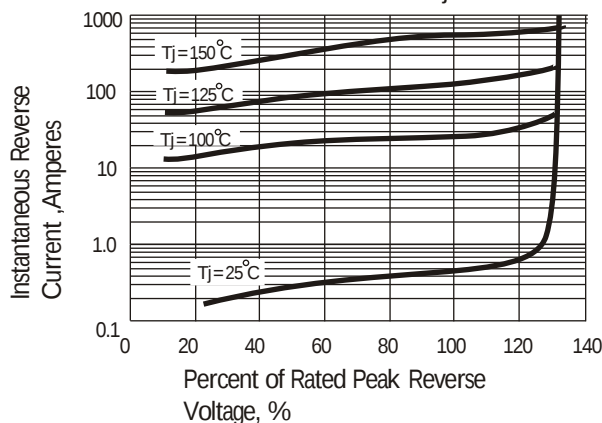
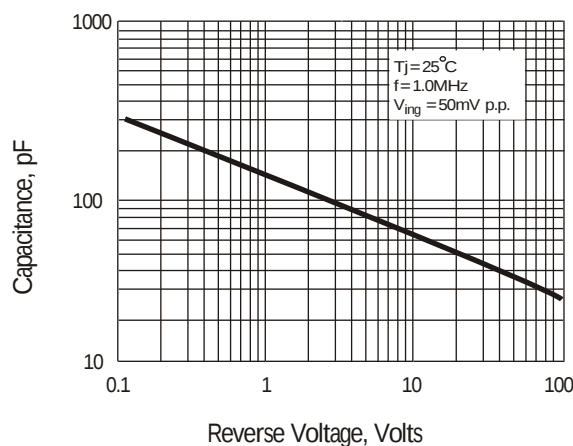


Fig.5 Typical Junction Capacitance



The curve above is for reference only.