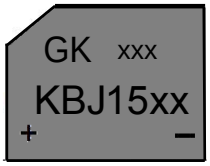
KBJ15005 THRU KBJ1510

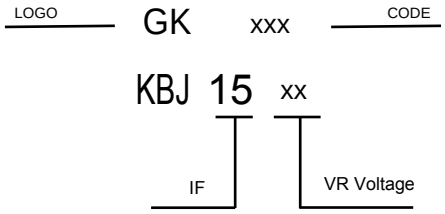
SINGLE PHASE 15.0 AMP BRIDGE RECTIFIERS

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
15.0 Amperes

FEATURES

* Ideal for printed circuit board
* Low forward voltage
* Low leakage current
* Polarity: marked on body
* Mounting position: Any





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25℃ ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	KBJ15005	KBJ1501	KBJ1502	KBJ1504	KBJ1506	KBJ1508	KBJ1510	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Current @Tc=100℃	15.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	240							A
Maximum Forward Voltage Drop per Bridge Element at 7.5A D.C.	1.05							V
Maximum DC Reverse Current Ta=25℃	10							μA
at Rated DC Blocking Voltage Ta=125℃	500							μA
Typical Junction Capacitance (Note 1)	60							PF
Typical Thermal Resistance $R_{\theta JC}$ (Note 2)	0.8							℃/W
Operating Temperature Range, T_J	-55 — +150							℃
Storage Temperature Range, T_{STG}	-55 — +150							℃

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal Resistance from Junction to Case with device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

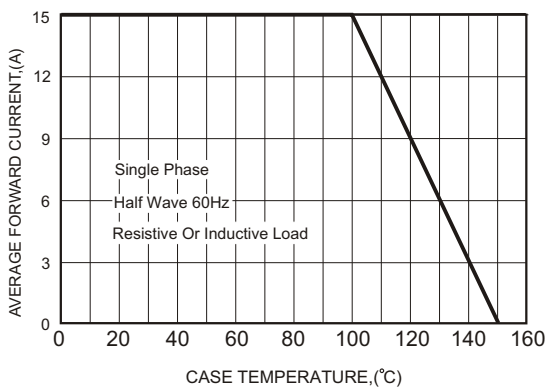


FIG.2-TYPICAL FORWARD CHARACTERISTICS

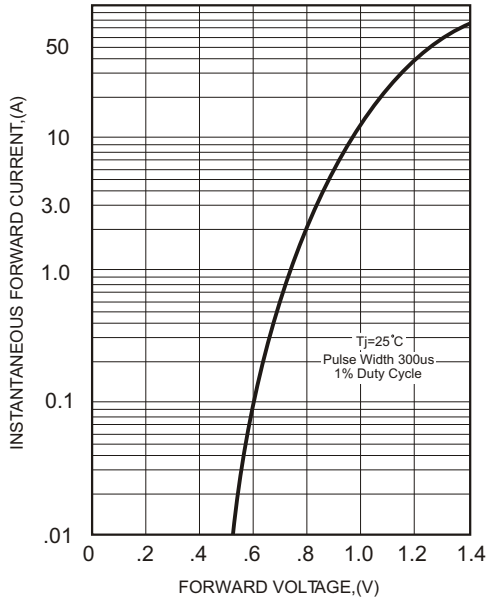


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

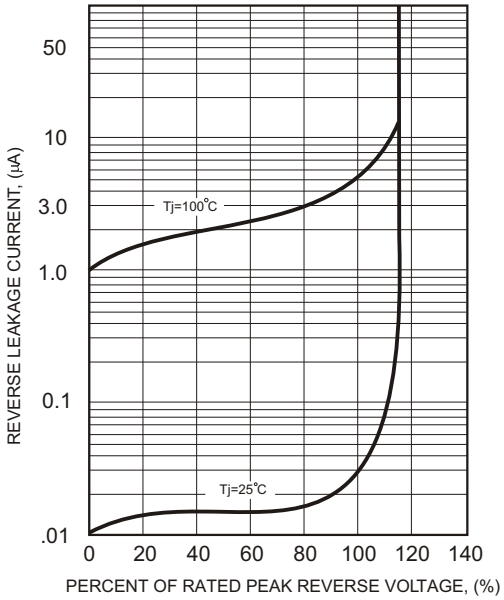
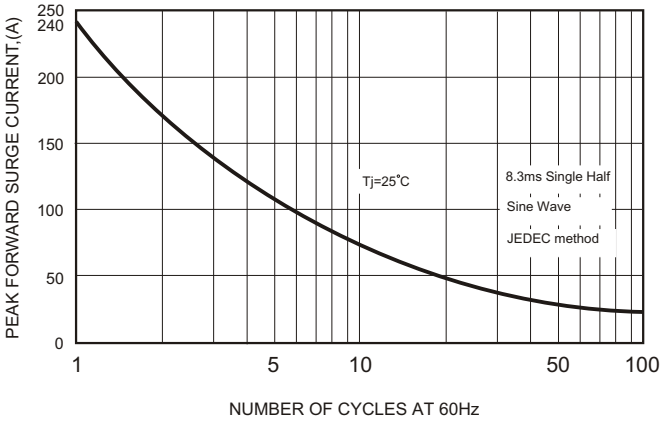
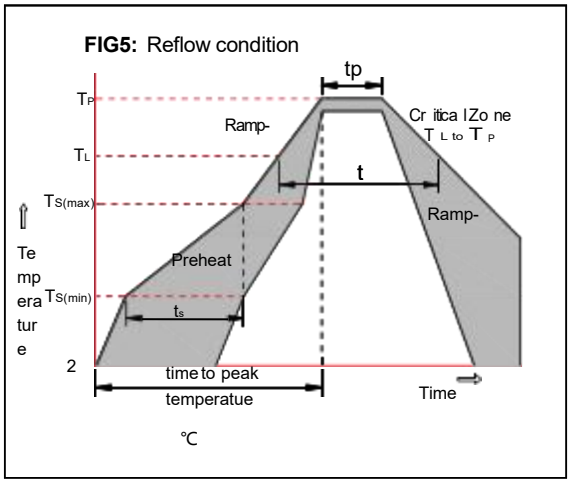


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

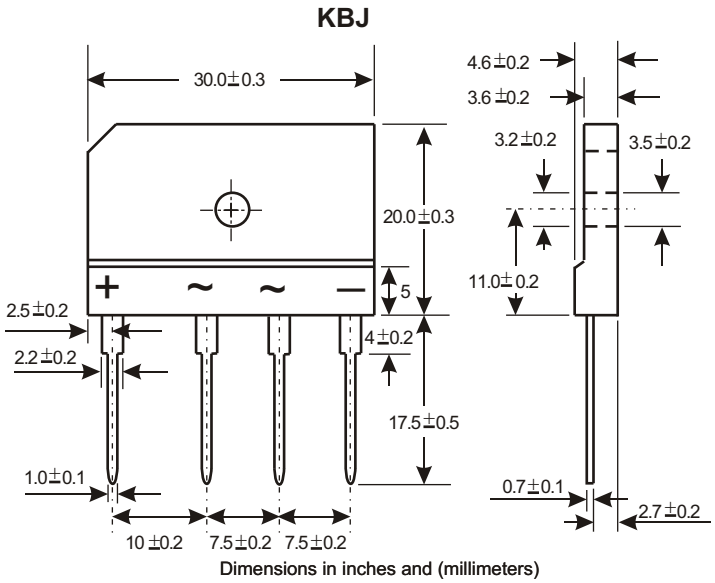


Soldering parameters

Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃



Package Dimensions & Suggested Pad Layout



Dimensions in inches and (millimeters)