

FEATURES

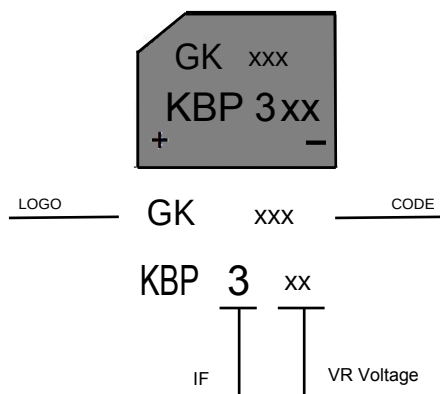
- * Ideal for printed circuit board
- * Low forward voltage
- * Low leakage current
- * Polarity: marked on body
- * Mounting position: Any

VOLTAGE RANGE

600 to 1000 Volts

CURRENT

3.0 Ampere



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, derate current by 20%.

	Symbols	KBP306	KBP308	KBP310	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	600	800	1000	Volts
Maximum Average Forward Rectified Current	$I_{(AV)}$	3.0			Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	80			Amp
Maximum Forward Voltage at 3.0A DC and 25°C	V_F	1.1			Volts
Maximum Reverse Current at $T_A=25^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_A=100^{\circ}\text{C}$	I_R	10.0 500			uAmp
Typical Junction Capacitance (Note 1)	C_J	25			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	30			°C/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	16			°C/W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to +150			°C

NOTES:

- 1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
- 2- Thermal Resistance Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. Mounted.

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

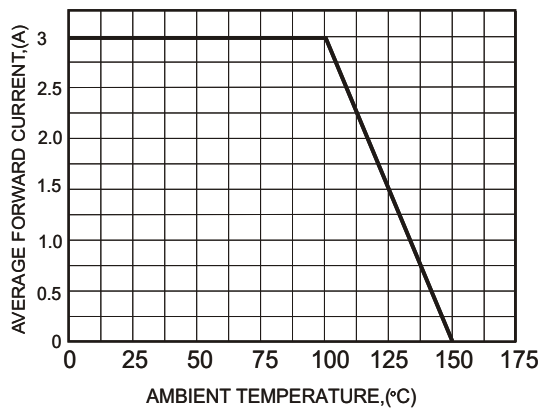


FIG.2-TYPICAL FORWARD CHARACTERISTICS

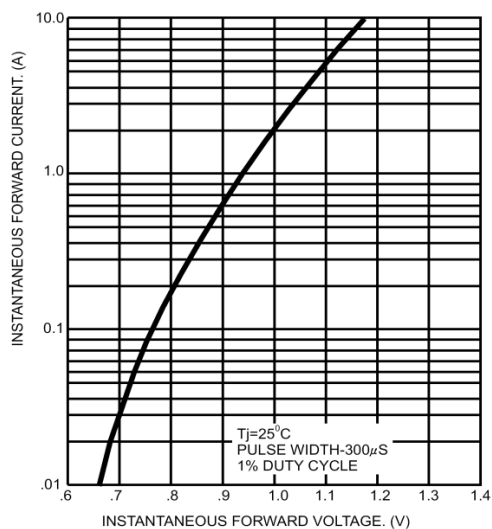


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

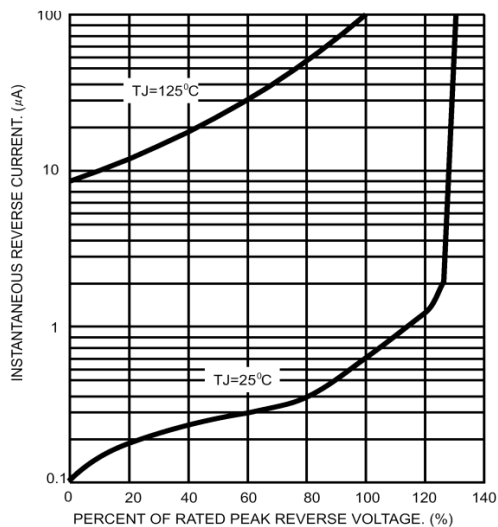
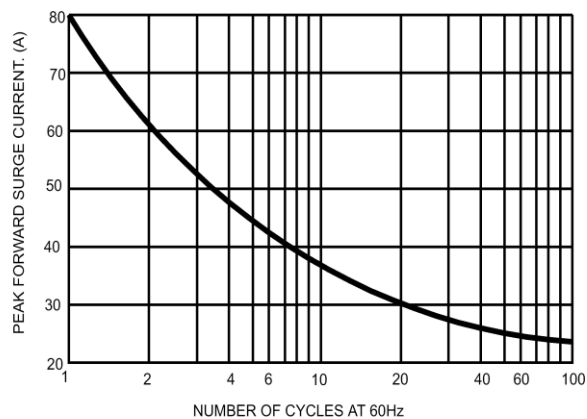
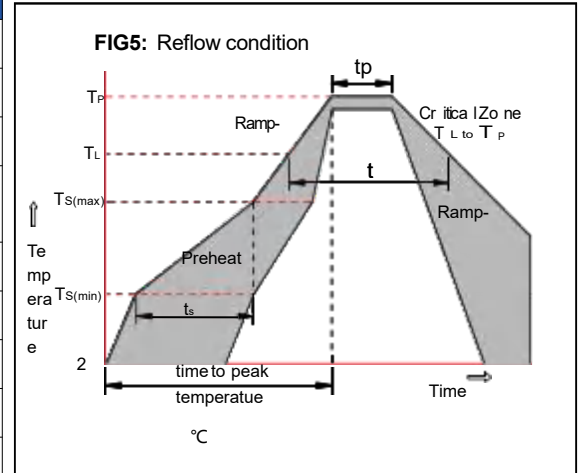


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Soldering parameters

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



Package Dimensions & Suggested Pad Layout

