

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0

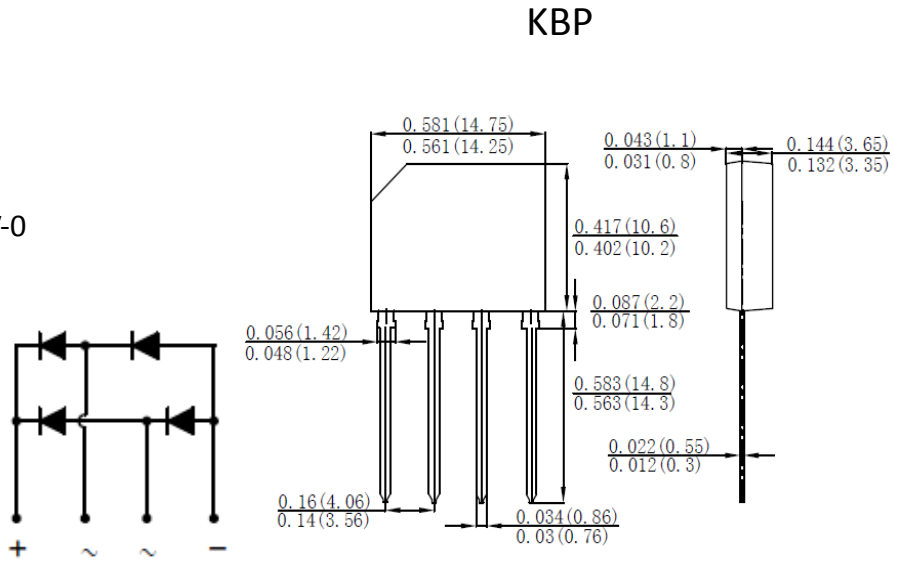
Mechanical Data

Case: KBP molded plastic

Terminals: plated leads solderable
per MIL-STD-202, Method 208

Polarity: As marked on case

Mounting Position: Any



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

PARAMETER	SYMBOL	KBP 3005	KBP 301	KBP 302	KBP 304	KBP 306	KBP 308	KBP 310	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	10	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @TC=100°C (Note 1)	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JED EC method)	I_{FSM}	60							A
Maximum Forward Voltage at 3.0A per leg	V_F	1.1							V
Peak Reverse Current @TA=25°C At Rated DC Blocking Voltage @TA=125°C	I_R	5.0 500							uA
Typical Thermal Resistance (Note 2)	R_{QJA} R_{QJC}	30 11							°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150							°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 Forward Current Derating Curve

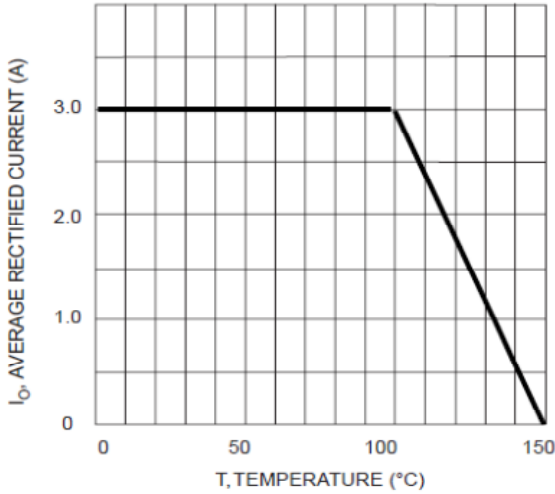


Fig. 2 Typical Fwd Characteristics

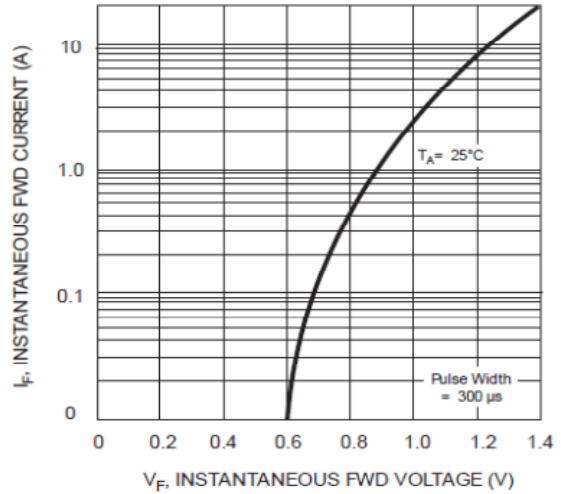


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

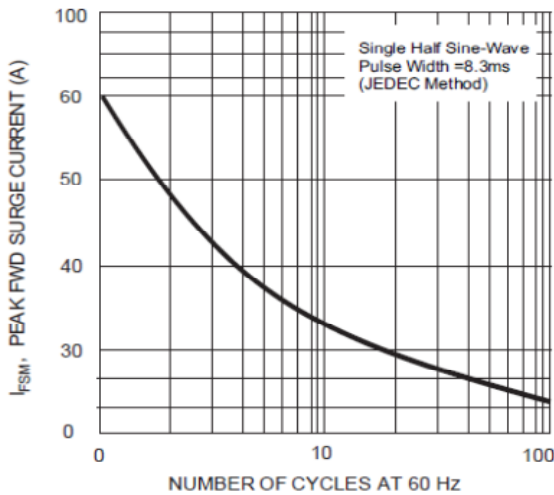


Fig. 4 Typical Junction Capacitance

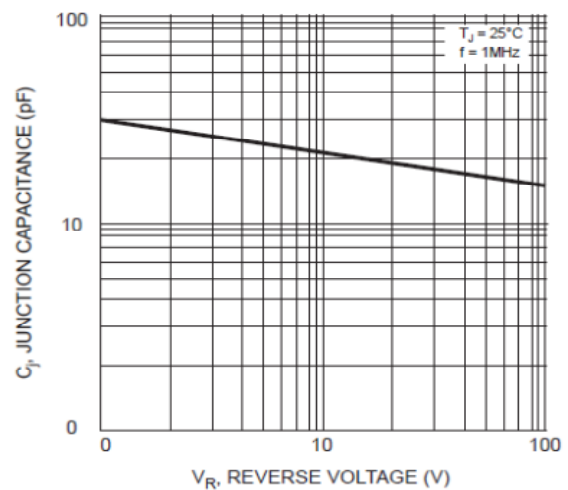


Fig. 5 Typical Reverse Characteristics (per element)

