KBP4005 THRU KBP410

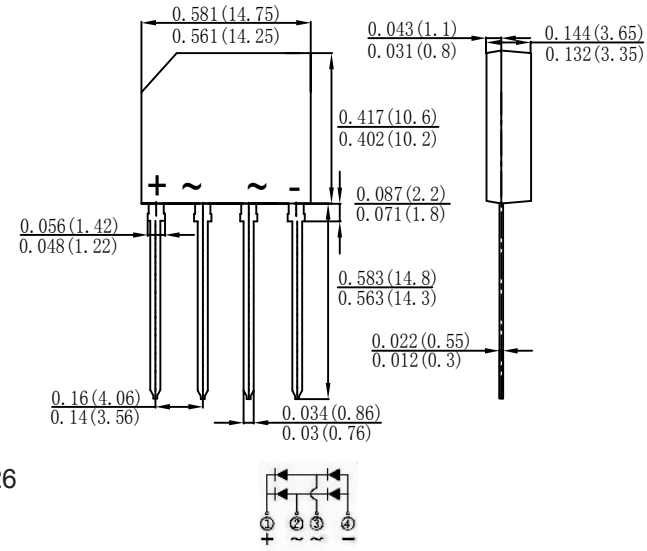
Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

SINGLE BRIDGE RECTIFIERS

Features

KBP

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



Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC KBP Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.069 ounce, 1.95 grams

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unlss otherwise specified.

Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter Marking Code	*SYMBOLS*	KBP4005	KBP401	KBP402	KBP404	KBP406	KBP408	KBP410	UNITS
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 output rectified current at Tc=50 °C(Note 1)	$I_{(AV)}$	4.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80.0							A
Maximum instantaneous forward voltage drop per birdge element at 4.0A	V_F	1.1							V
Maximum DC reverse current T_A=25°C	I_R	5.0							μA
at rated DC blocking voltage T_A=125°C		0.5							mA
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							°C/W
Operating junction temperature range	T_J	-55 to +150							°C
storage temperature range	T_{STG}	-55 to +150							°C

Note:1. Mounted on glass epoxy PC board with 1.3mm^2 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

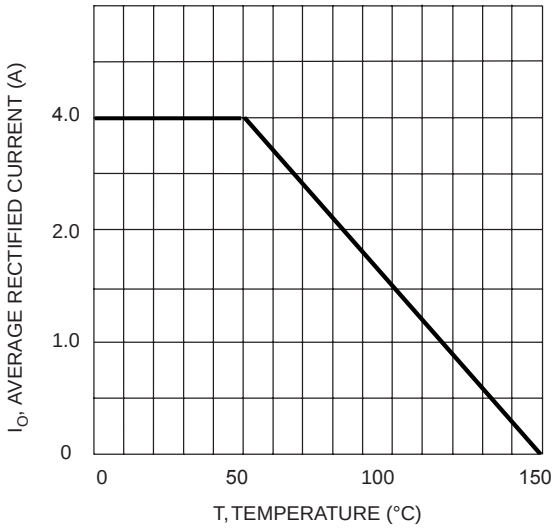


Fig. 2 Typical Fwd Characteristics

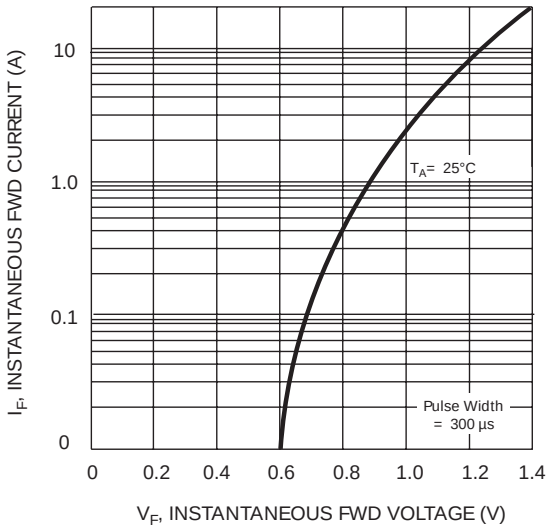


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

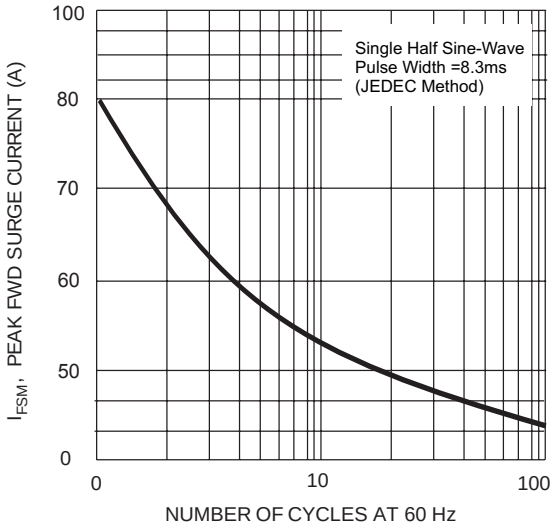
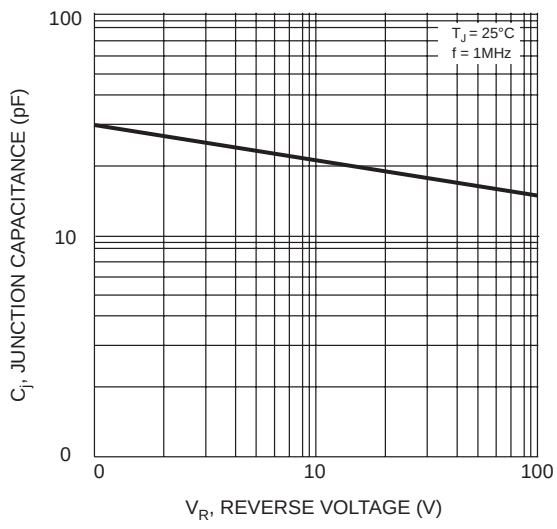


Fig. 4 Typical Junction Capacitance



The curve above is for reference only.