Dabiao Electronic

KBP4005 THRU KBP410

SILICON BRIDGE RECTIFIERS

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

Features

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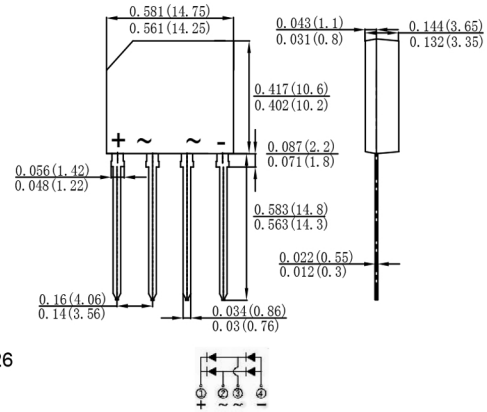
- The Plastic material-has UL flammability 94V-0

GBP



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 : 0.050 ounce, 1.52 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	RCD KBP4005	RCD KBP401	RCD KBP402	RCD KBP404	RCD KBP406	RCD KBP408	RCD 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=100°C (With heatsink) (Without heatsink)	$I_{(AV)}$	4.0 2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	75.0							A
Maximum instantaneous forward voltage drop per birdge element at 4.0A	V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage TA=25°C	I_R	5.0							μA
TA=125°C		0.5							mA
I²t Rating for fusing (3ms≤t ≤8.3ms)	I^2t	23.3							A^2S
Typical Junction Capacitance per element (Note 2)	C_j	50							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	40 14 20							°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 DC.

Fig.1 Forward Current Derating Curve

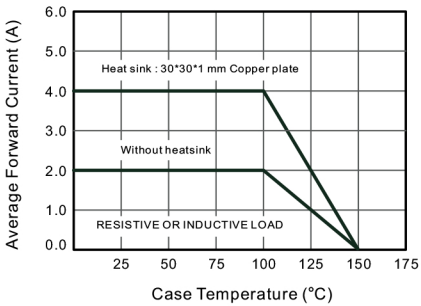


Fig.2 Typical Instaneous Reverse Characteristics

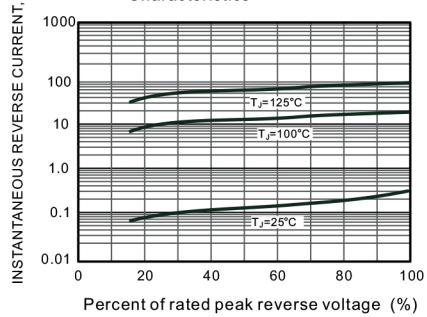


Fig.3 Typical Forward Characteristic

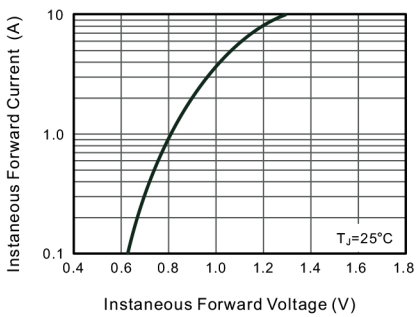


Fig.4 Typical Junction Capacitance

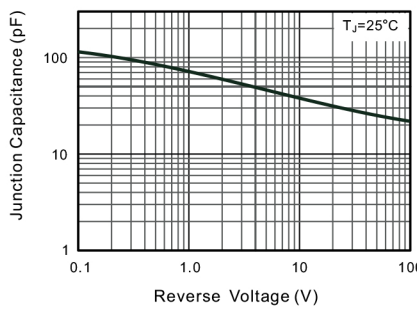


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

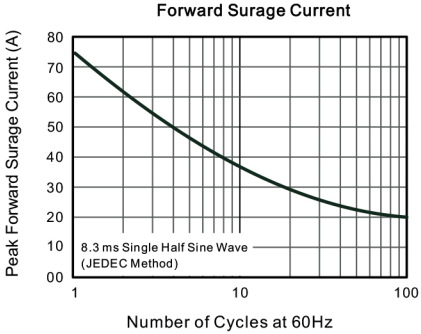
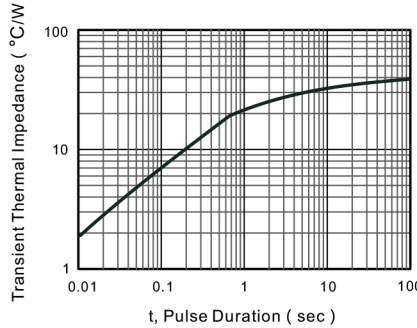


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.