



2KBP005M thru 2KBP10M, 3N253 thru 3N259

Crownpo Technology



Glass Passivated Single-Phase Bridge Rectifier

Reverse Voltage 50 to 1000 V
Forward Current 2.0 A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under Recognized Component Index
- Typical I_R less than $0.1\mu A$
- High case dielectric strength
- Ideal for printed circuit boards
- High temperature soldering guaranteed: $260^\circ C/10$ seconds at 5 lbs. (2.3kg) tension

Mechanical Data

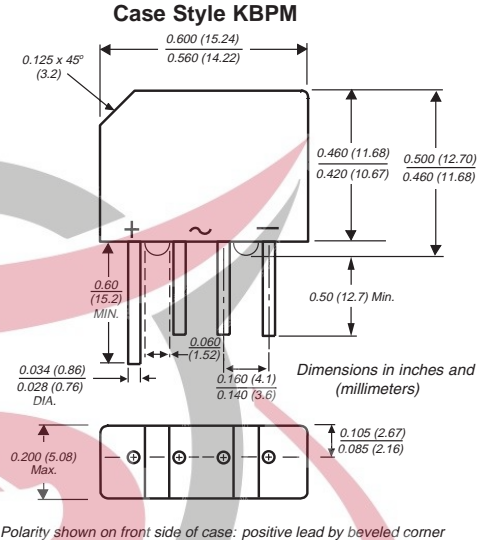
Case: Molded plastic body over passivated junctions

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Polarity symbols marked on case

Mounting Position: Any

Weight: 0.06 oz., 1.7 g



Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	2KBP 005M	2KBP 01M	2KBP 02M	2KBP 04M	2KBP 06M	2KBP 08M	2KBP 10M	Units
		3N253	3N254	3N255	3N256	3N257	3N258	3N259	
* 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 $T_A=55^\circ C$	$I_{F(AV)}$				2.0				A
* Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) $T_J=150^\circ C$	I_{FSM}				60				A
Rating for fusing ($t < 8.3ms$)	I^2t				15				A ² sec
Typical thermal resistance per leg ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$				30 11				$^\circ C/W$
* Operating junction and storage temperature range	T_J, T_{STG}				-55 to +165				$^\circ C$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

* Maximum instantaneous forward voltage drop per leg at 3.14A	V_F		1.1						V
* Maximum DC reverse current $T_A=25^\circ C$ at rated DC blocking voltage per leg $T_A=125^\circ C$	I_R				5.0 500				μA
Typical junction capacitance per leg at 4.0V, 1MHz	C_J				25				pF

Notes: (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with, $0.47 \times 0.47"$ (12 x12mm) copper pads
* JEDEC registered values



Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

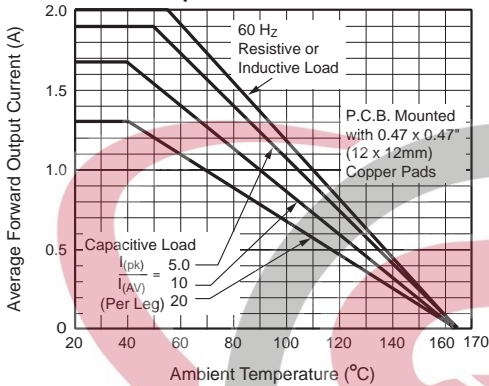


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

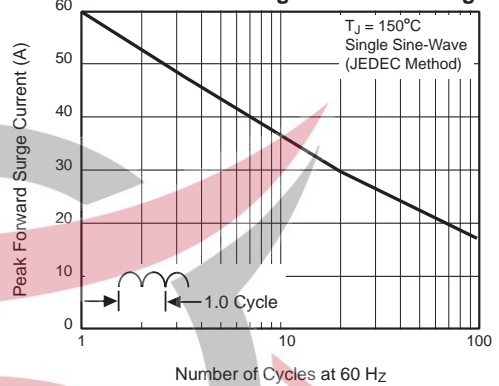


Fig. 3 - Typical Forward Characteristics Per Leg

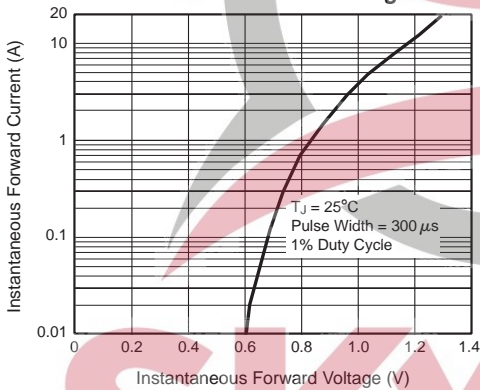


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

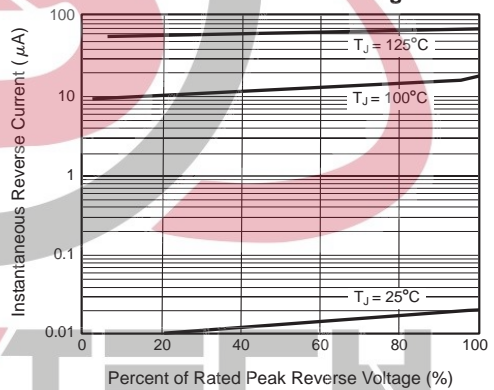


Fig. 5 - Typical Junction Capacitance Per Leg

