

KBPC50005W — KBPC5010W

SILICON BRIDGE RECTIFIER

Reverse Voltage - 50 to 1000 V
Forward Current - 50.0 A

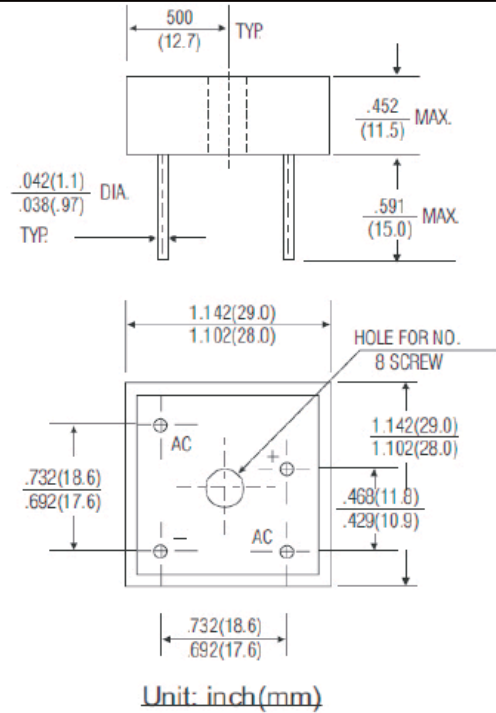
FEATURES

- Molod case maximum heat dissipation
- Surge overload ratings -400 Amperes
- low forward voltage drop

MECHANICAL DATA

- Case style: KBPC plastic molded
- Mounting: thru hole for # 8 screw mounting
- Polarity: As marked
- Epoxy: ul94v-0 rate flame retardant

KBP



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted) Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate by 20%.

MDD Catalog Number	SYMBOLS	KBPC 50005W	KBPC 5001W	KBPC 5002W	KBPC 5004W	KBPC 5006W	KBPC 5008W	KBPC 5010W	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward output rectified current at $T_c=50^\circ\text{C}$ (Note 1,2)	$I_{(AV)}$	50							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	500.0							Amps
Maximum instantaneous forward voltage drop per bridge element at 25A	V_F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A=25^\circ\text{C}$							μA
		$T_A=100^\circ\text{C}$							mA
Typical junction capacitance (Note 1)	C_J	300							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	2.5							k/W
Operating and storage temperature range	T_J, T_{STG}	-55 to +125							$^\circ\text{C}$

NOTES:

1. Measured at 1MHz applied reverse voltage of 4.0v D.C
2. Thermal resistance junction to case mounted on heatsink.

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

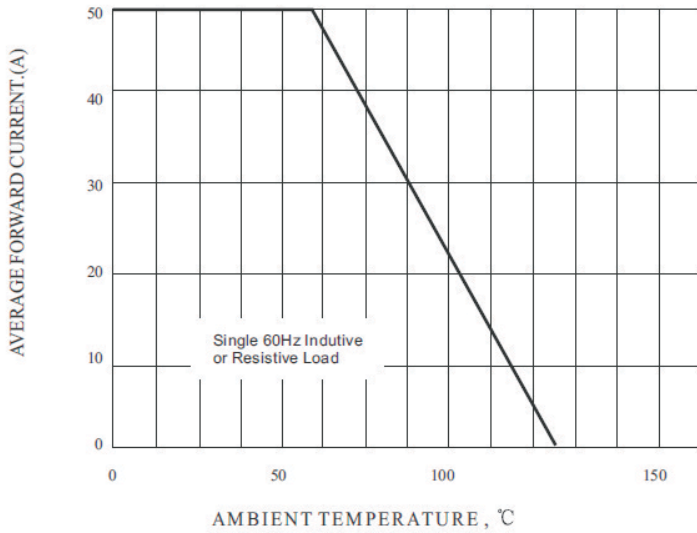


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

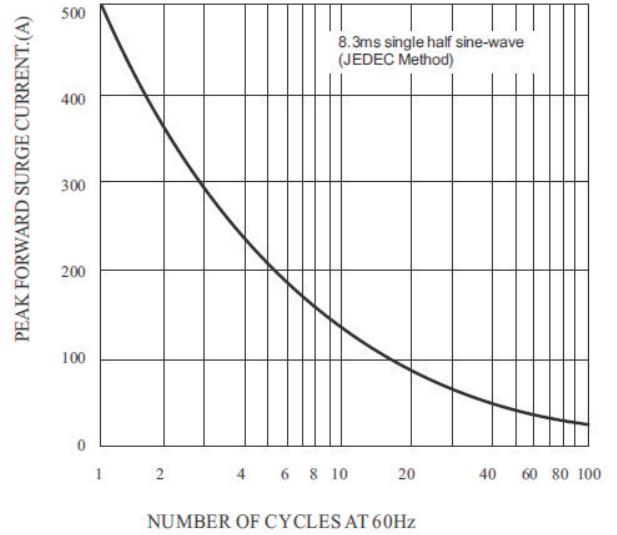


FIG.3-TYPICAL FORWARD CHARACTERISTICS

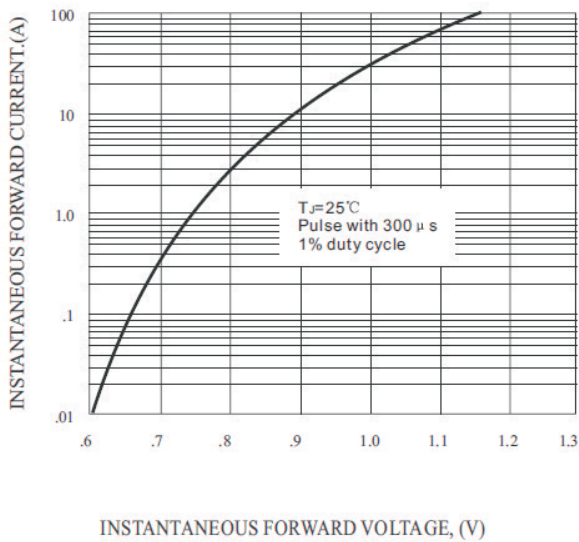


FIG.4-TYPICAL REVERSE CHARACTERISTICS

