

KBPC50005 THRU KBPC5010

SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 50.0 Ampere

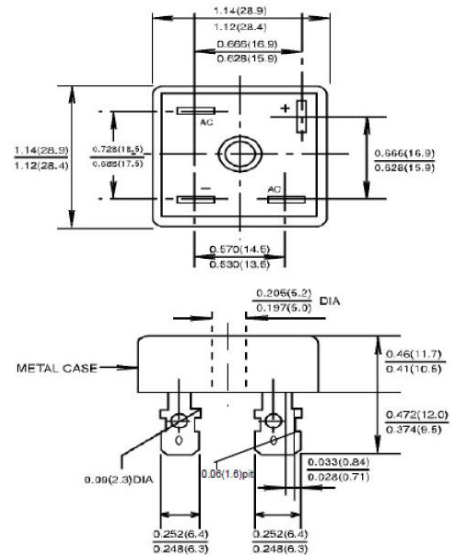
FEATURES

- ◆ High forward surge current capability
- ◆ Integrally molded heatsink provide very low thermal resistance
- ◆ High isolation voltage from case to lugs
- ◆ High temperature soldering guaranteed: 260°C /10 second, at 5 lbs. (2.3kg) tension

Mechanical Data

- ◆ Case: Metal case
- ◆ Terminal: Plated 0.25" (6.35mm) lug
- ◆ Polarity: Polarity symbols marked on case
- ◆ Mounting: Thru hole for #10 screw, 20 in.- lbs. Torque Max
- ◆ Weight: 1.02 ounce, 29 gram

KBPC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

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

PARAMETER	SYMBOL	KBPC 50005	KBPC 5001	KBPC 5002	KBPC 5004	KBPC 5006	KBPC 5008	KBPC 5010	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RRM}	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 Rectified Output 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}	400							Amps
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	664							A^2S
Maximum Instantaneous Forward Voltage at 25A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	5.0							μAmps
	$T_A=125^\circ\text{C}$	1.0							mAmps
Isolation Voltage from case to lugs	V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1,2)	$R_{\theta JC}$	2.0							$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-65 to +150							$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150							$^\circ\text{C}$

Note: 1. Unit mounted on 9"×3.5"×4.6" (23×9×11.8mm) Al. finned plate.

2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.

KBPC50005 THRU KBPC5010

SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 50.0 Ampere

RATING AND CHARACTERISTIC CURVES KBPC50005 THRU KBPC5010

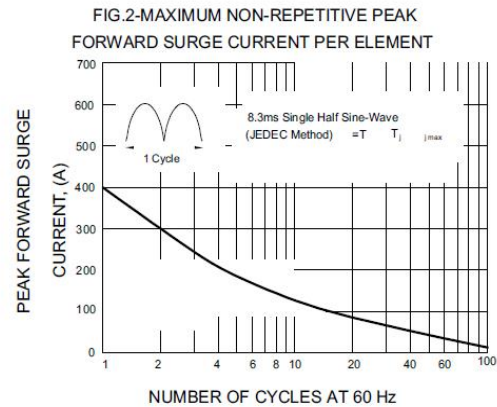
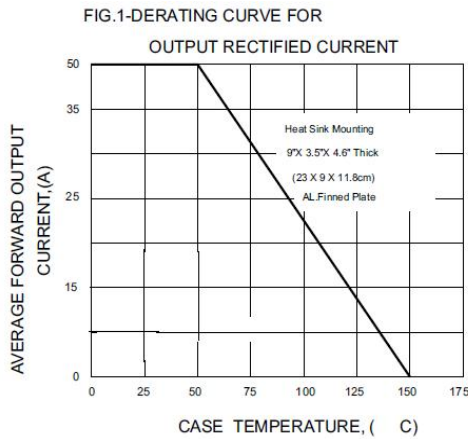


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

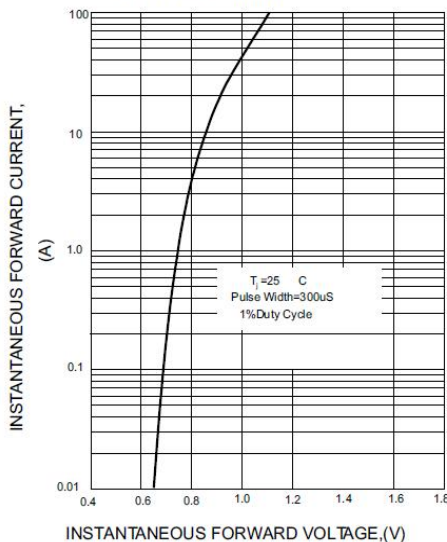


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

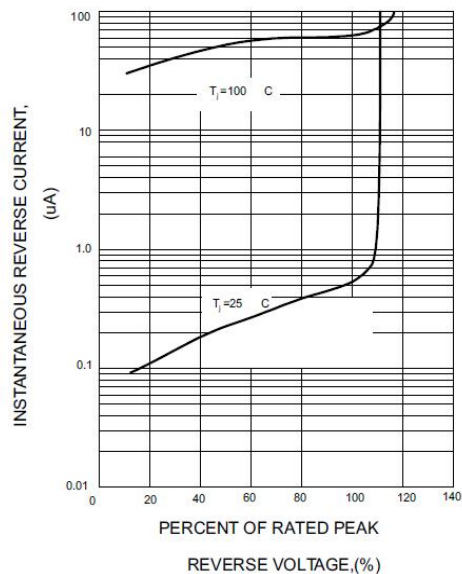
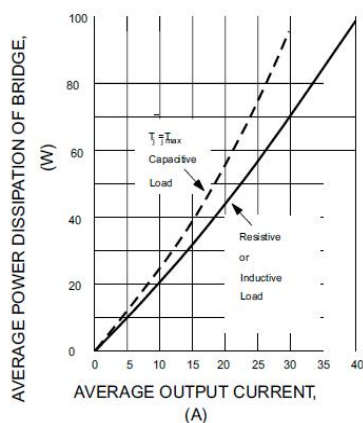


FIG.5-MAXIMUM POWER DISSIPATION



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.