

# KBPC50005W THRU KBPC5010W

## SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 50.0 Ampere

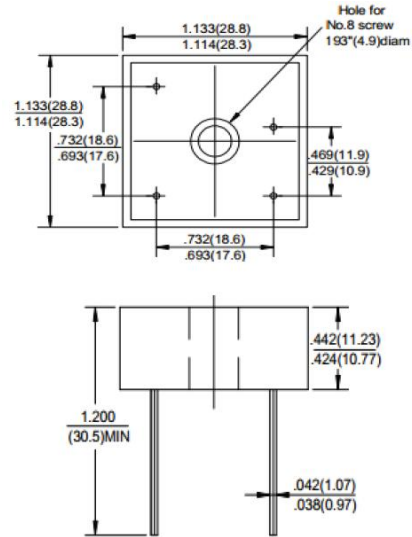
### FEATURES

- ◆ High forward surge current capability
- ◆ 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. Torquite Max
- ◆ Weight: 1.02 ounce, 29 gram

### KBPC-W



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 50005W	KBPC 5001W	KBPC 5002W	KBPC 5004W	KBPC 5006W	KBPC 5008W	KBPC 5010W	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 TC=55°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<8.3ms)	$I^2t$	664							A <sup>2</sup> S
Maximum Instantaneous Forward Voltage at 7.5A	$V_F$	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	$T_A=25^\circ\text{C}$	$I_R$ 5.0							μAmps
	$T_A=150^\circ\text{C}$	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							°C/W
Operating Temperature Range	$T_j$	-65 to +150							°C
Storage Temperature Range	$T_{STG}$	-65 to +150							°C

Note: 1. Unit mounted on 5"×4"×3" thick (12.8mm×10.2mm×7.3mm) Al. plate.

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

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### RATING AND CHARACTERISTIC CURVES KBPC50005W THRU KBPC5010W

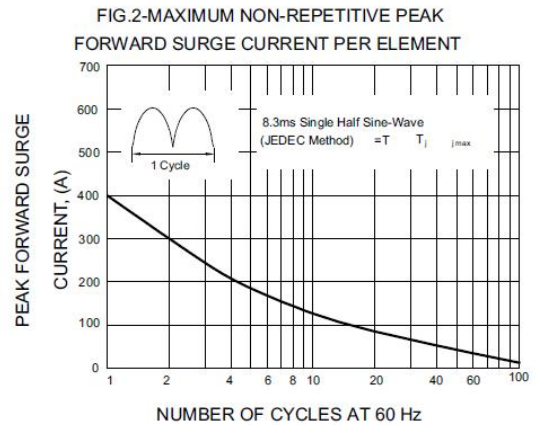
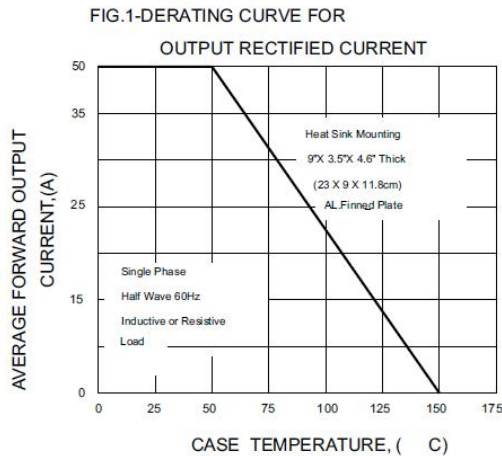


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

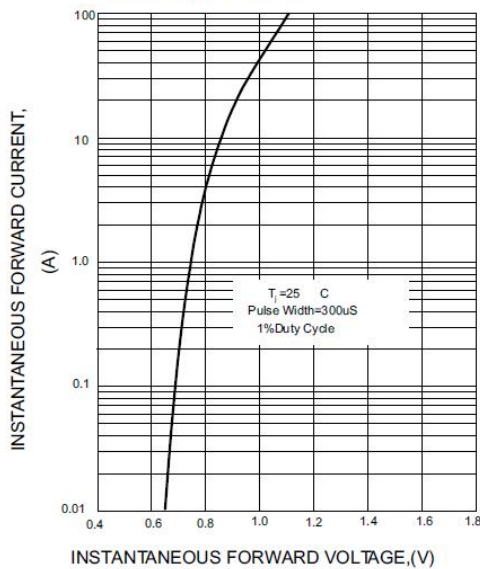


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

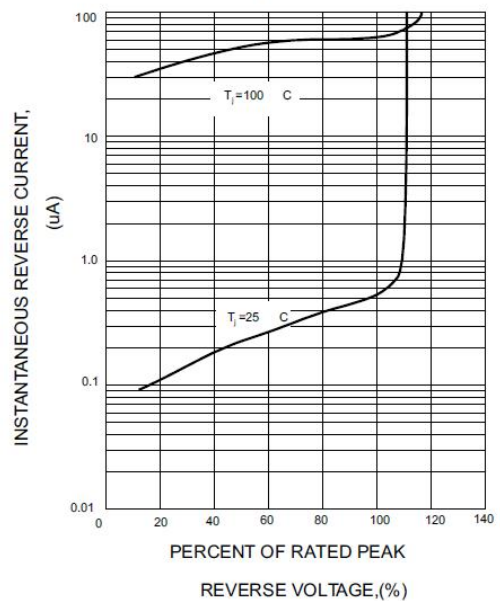
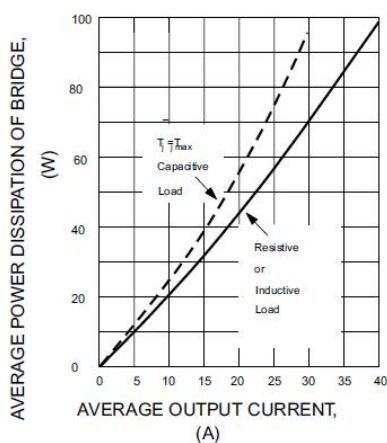


FIG.5-MAXIMUM POWER DISSIPATION



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