

# KBPC35005W THRU KBPC3510W

## SINGLE-PHASE BRIDGE RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts    CURRENT 35.0 Ampere

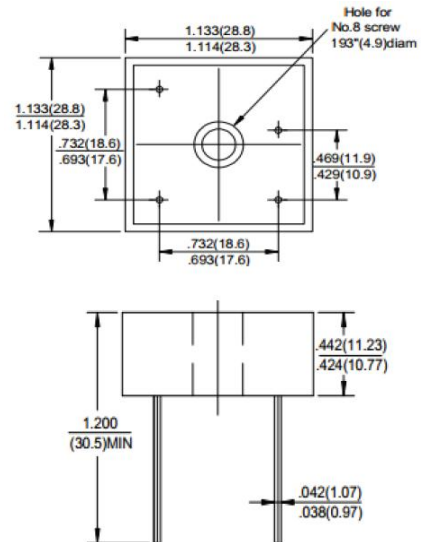
### FEATURES

- ◆ 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 0.04" (1.02mm) lug.
- ◆ Polarity: Polarity symbols marked on case.
- ◆ Mounting: Thru hole for #10 screw, 20 in.- lbs. Torque Max.
- ◆ Weight: 0.93 ounce, 26.4gram.

### 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 35005W	KBPC 3501W	KBPC 3502W	KBPC 3504W	KBPC 3506W	KBPC 3508W	KBPC 3510W	UNIT	
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 Rectified Output Current at $T_C=50^\circ C$ (Note 1, 2)	$I_{(AV)}$	35							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							$A^2s$	
Maximum Instantaneous Forward Voltage at 17.5A	$V_F$	1.1							Volts	
Maximum Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_A=25^\circ C$	10							$\mu A$
		$T_A=150^\circ C$	1.0							mAmps
Isolation Voltage from case to lug	$V_{ISO}$	2500							$V_{AC}$	
Typical Thermal Resistance (Note 1,2)	$R_{\theta JL}$	2.0							$^\circ C/W$	
Operating Temperature Range	$T_J$	-65 to +150							$^\circ C$	
Storage Temperature Range	$T_{stg}$	-65 to +150							$^\circ C$	

Note: 1. Unit mounted on 5" x 4" x 3" thick (12.8 mm x 10.2 mm x 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 KBPC35005W THRU KBPC3510W

FIG.1-DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

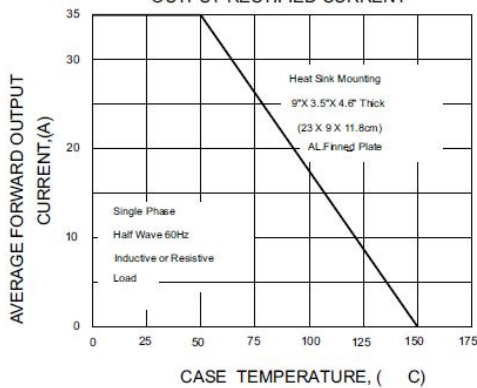


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT PER ELEMENT

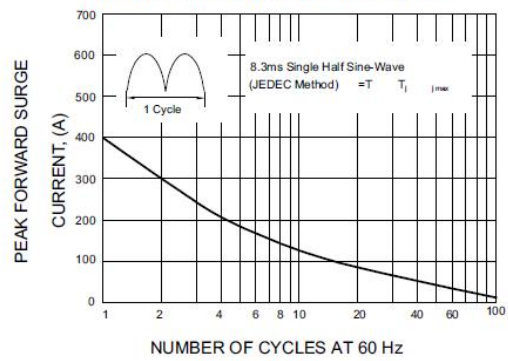


FIG.3-TYPICAL FORWARD CHARACTERISTICS  
PER BRIDGE ELEMENT

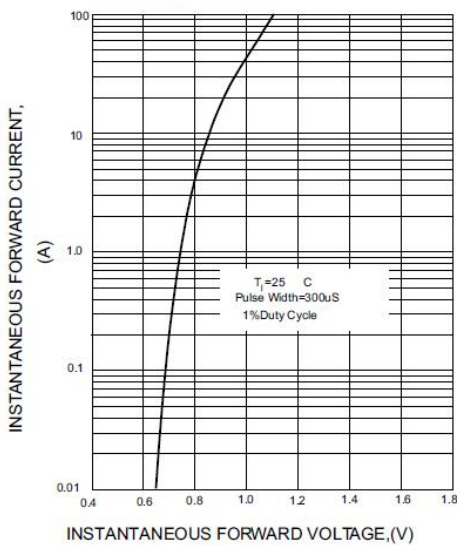


FIG.4-TYPICAL REVERSE CHARACTERISTICS  
PER BRIDGE ELEMENT

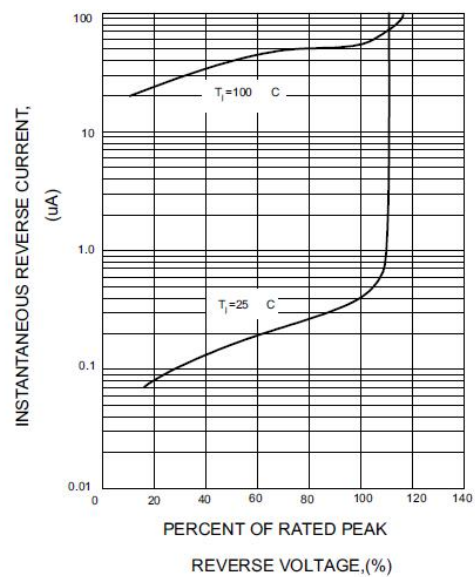


FIG.5-TYPICAL JUNCTION CAPACITANCE  
PER BRIDGE ELEMENT

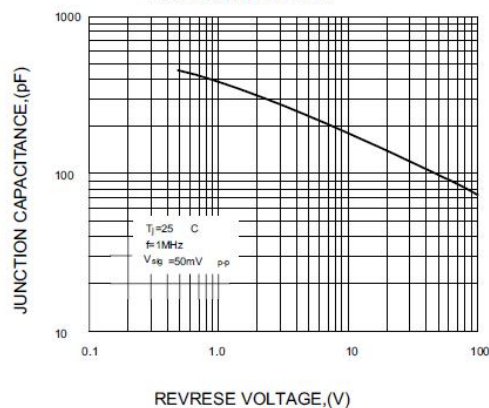
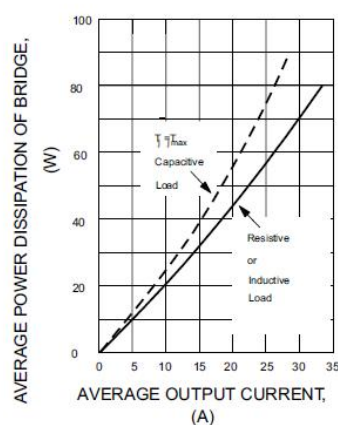


FIG.6-MAXIMUM POWER DISSIPATION



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