



# DATA SHEET

## KBPC1500~KBPC15010

### HIGH CURRENT SILICON BRIDGE RECTIFIERS

**VOLTAGE** 50 to 1000 Volts **CURRENT** 15 Amperes

KBPC

Unit : inch (mm)

#### FEATURES

- Metal Case for Maximum Heat Dissipation.
- Surge Overload Ratings to 400 Amperes.
- Both normal and Pb free product are available :  
Normal : 80~95% Sn, 5~20% Pb  
Pb free: 99% Sn above

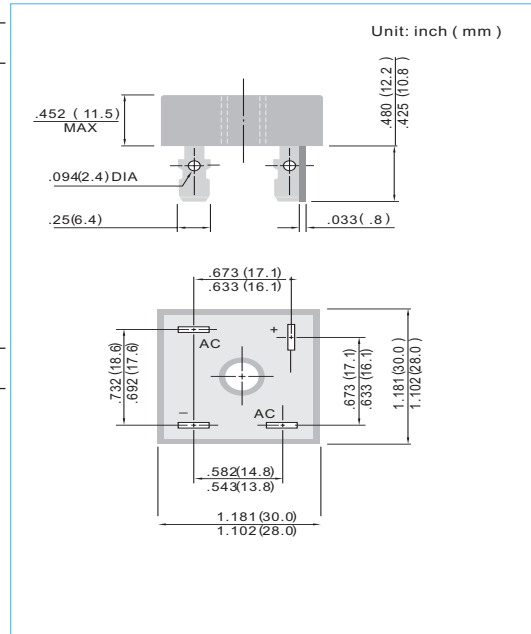
#### MECHANICAL DATA

Case: Metal

Terminals: Plated 25" FASTON

Mounting Position: Any

Weight: 1.0 ounce, 30 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, Resistive or inductive load  
 For capacitive load, derate current by 20%

PARAMETER	SYMBOL	KBPC 1500	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	UNITS
Maximum Recurrent 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	$V_R$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_A = 55$	$I_O$	15							A
Non-repetitive Peak Forward Surge Current, rated load	$I_{FSM}$	300							A
Maximum Forward Voltage per Bridge Element Specified Current at 7.5A,	$V_F$	1.2							V
Maximum Reverse Current at Rated DC Blocking Voltage per element	$I_R$	10							$\mu A$
$I^2t$ Rating for fusing ( $t < 8.35$ ms )	$I^2t$	374							$A^2S$
Typical Thermal Resistance(Fig 3 )	$R_{\theta JC}$	2.5							/ W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-50 TO +125							

NOTES : \*UNIT MOUNTED ON METAL HEAT-SINK



RATING AND CHARACTERISTIC CURVES

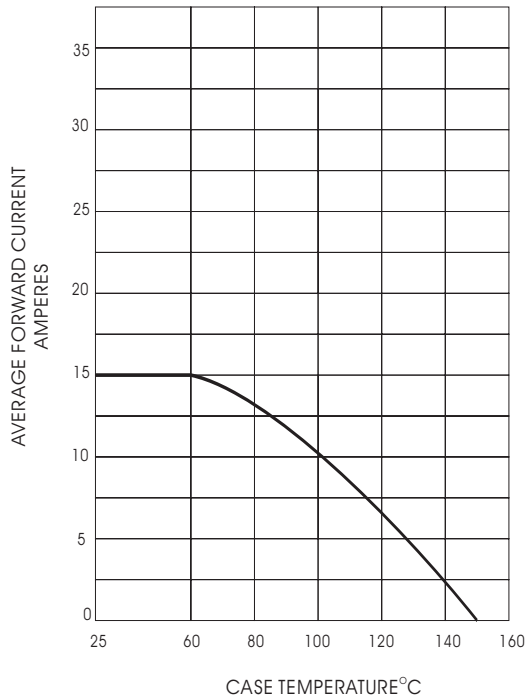


Fig. 1- OUTPUT CURRENT VS. CASE TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  $T_J = 150^{\circ}\text{C}$

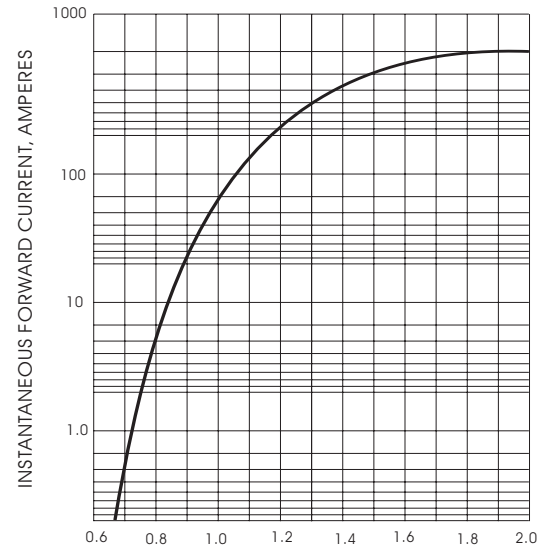


Fig. 2- TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS  
AT  $T_J = 25^{\circ}\text{C}$

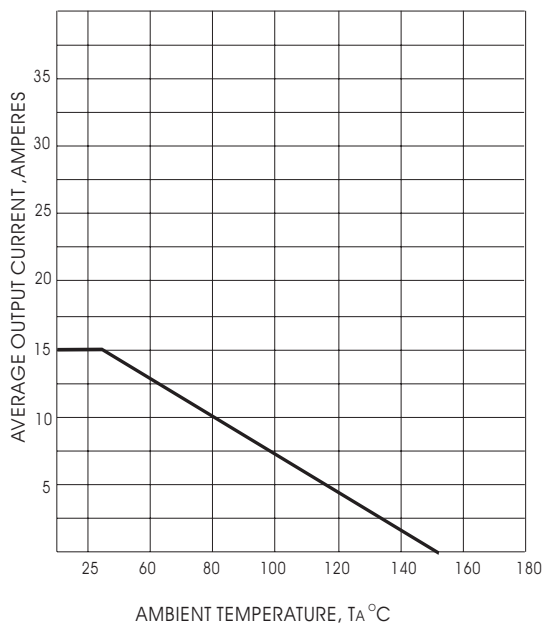


Fig. 3- OUTPUT CURRENT VS. AMBIENT TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  
BRIDGE MOUNTED ON A 8" x 8" ALUMINUM PLATE 25" THICK

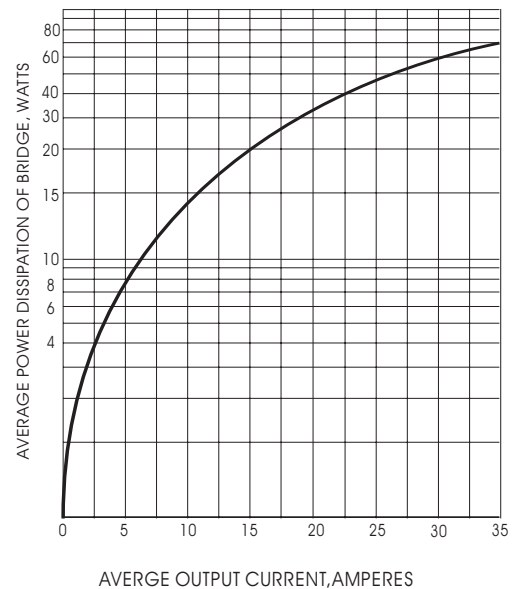


Fig. 4- POWER DISSIPATION VS. AVERAGE OUTPUT  
CURRENT RESISTIVE OR INDUCTIVE LOAD  
 $T_J = 150^{\circ}\text{C}$