KBPC3510

HIGH CURRENT SINGLE-PHASE SILICON BRIDGE RECTIFIER

康 比 電 子
HORNBY ELECTRONIC

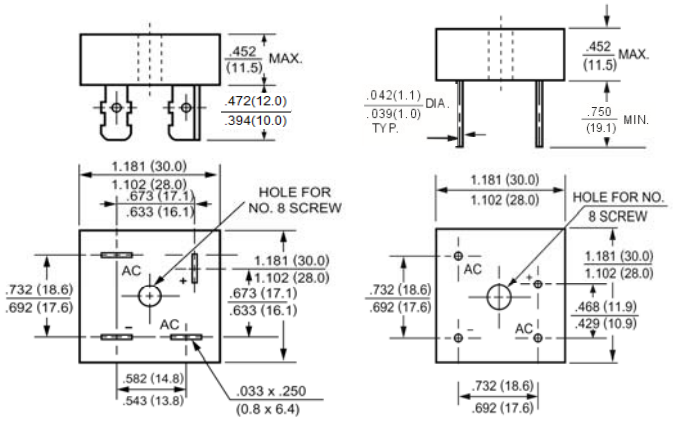
REVERSE VOLTAGE: **1000 VOLTS**

FORWARD CURRENT: **35.0 AMPERE**

FEATURES

· Electrically Isolated Metal Case for Maximum Heat Dissipation
· Surge Overload Ratings to 400 Amperes
· Rating to 1,000V PRV.
· High efficiency
· UL Recognized File # E-216967

KBPC(W)



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Metal or molded plastic with heatsink integrally mounted in the bridge encapsulation
Suffix letter "P" added to indicate plastic
Terminals: Either plated 0.25" (6.35mm) Fasten lugs or plated copper leads 0.040" (1.02mm) diameter.
Suffix letter "W" added to indicate leads
Mounting position: Any
Weight: 1.0ounce, 30.0gram

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60H_Z, resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	*KBPC35005*	*KBPC3501*	*KBPC3502*	*KBPC3504*	*KBPC3506*	*KBPC3508*	*KBPC3510*	Units
Maximum Recurrent 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 Current at T_C=55℃	$I_{(AV)}$	35.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	400							**Amp**
Maximum Forward Voltage at 17.5A DC and 25℃	V_F	1.1							**Volts**
Maximum Reverse Current at T_A=25℃ / **at Rated DC Blocking Voltage T_A=125℃**	I_R	10.0 / 1000							**uAmp**
Typical Junction Capacitance (Note 1)	C_J	300							**pF**
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.4							**℃/W**
Operating and Storage Temperature Range	T_J, Tstg	-55 to +150							**℃**

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Thermal resistance from junction to case per leg

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RATINGS AND CHARACTERISTIC CURVES

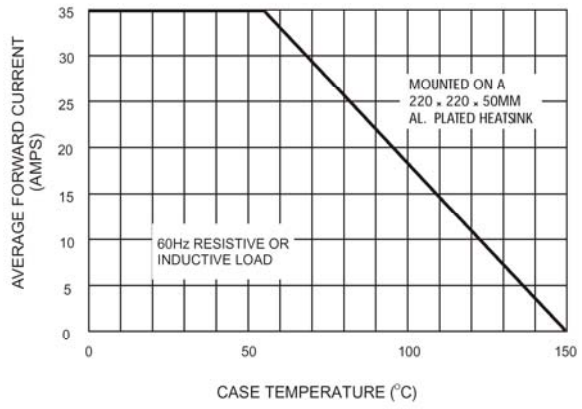

Figure 1. Forward Current Derating Curve

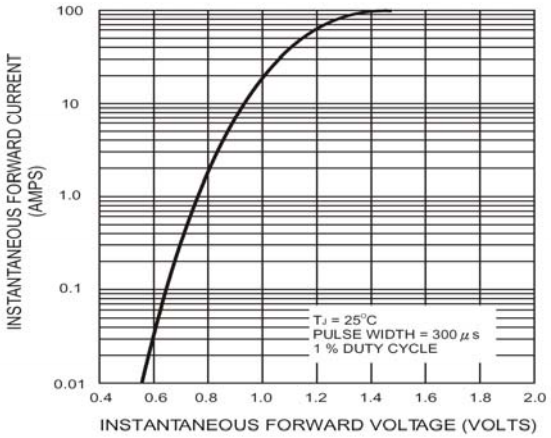

Figure 2. Typical Instantaneous Forward Characteristics Per Brdige Element

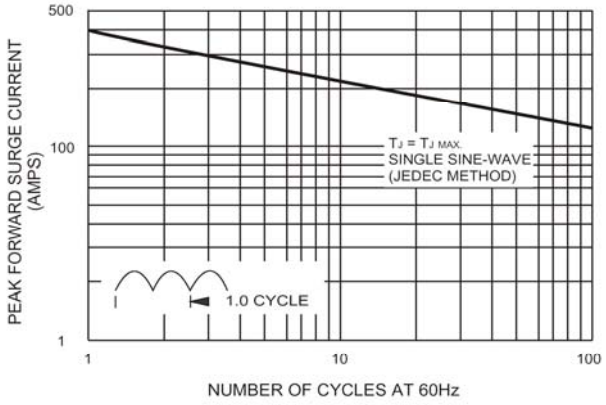

Figure 3. Maximum Non-repetitive Peak Forward Surge Current Per Bridge Element

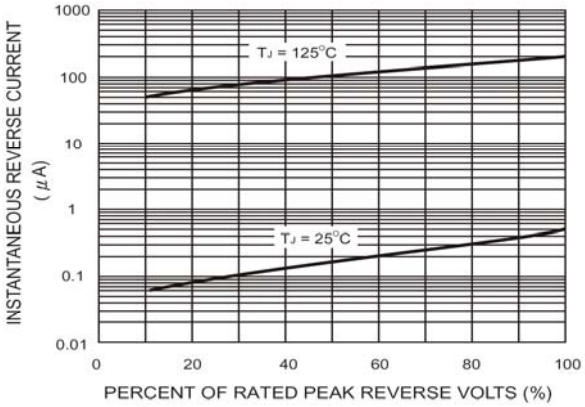

Figure 4. Typical Reverse Leakage Characteristics Per Bridge Element

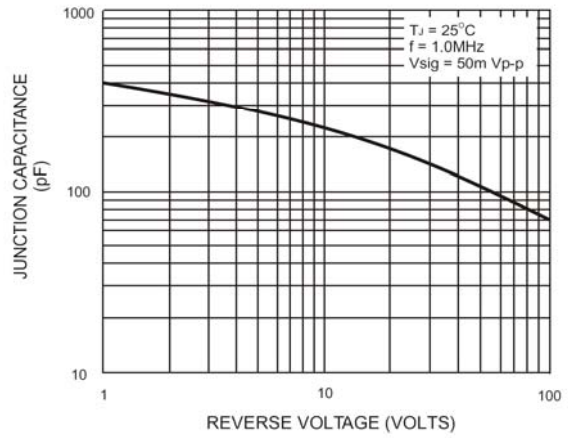

Figure 5. Typical Junction Capacitance Per Bridge Element

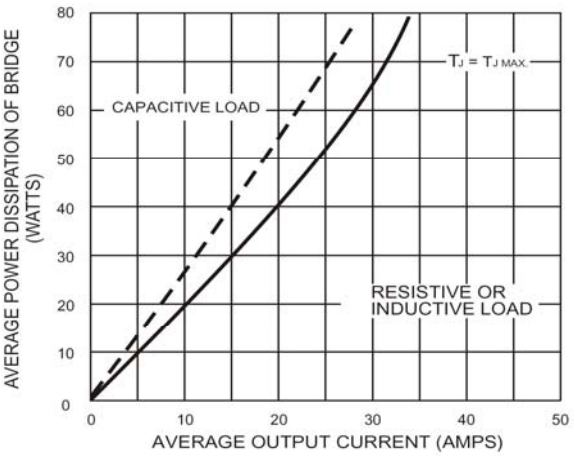

Figure 6. Maximum Power Dissipation