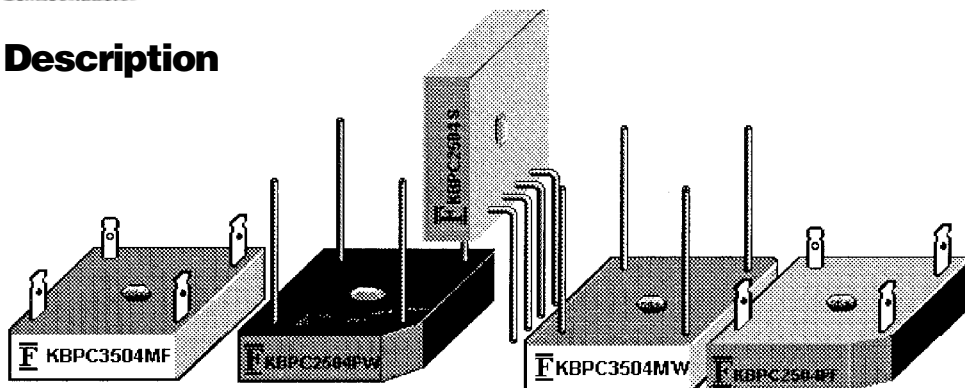


# 10 to 40 Amp SINGLE PHASE SILICON BRIDGE

## Description



**KBPC10XX... 40XX Series**

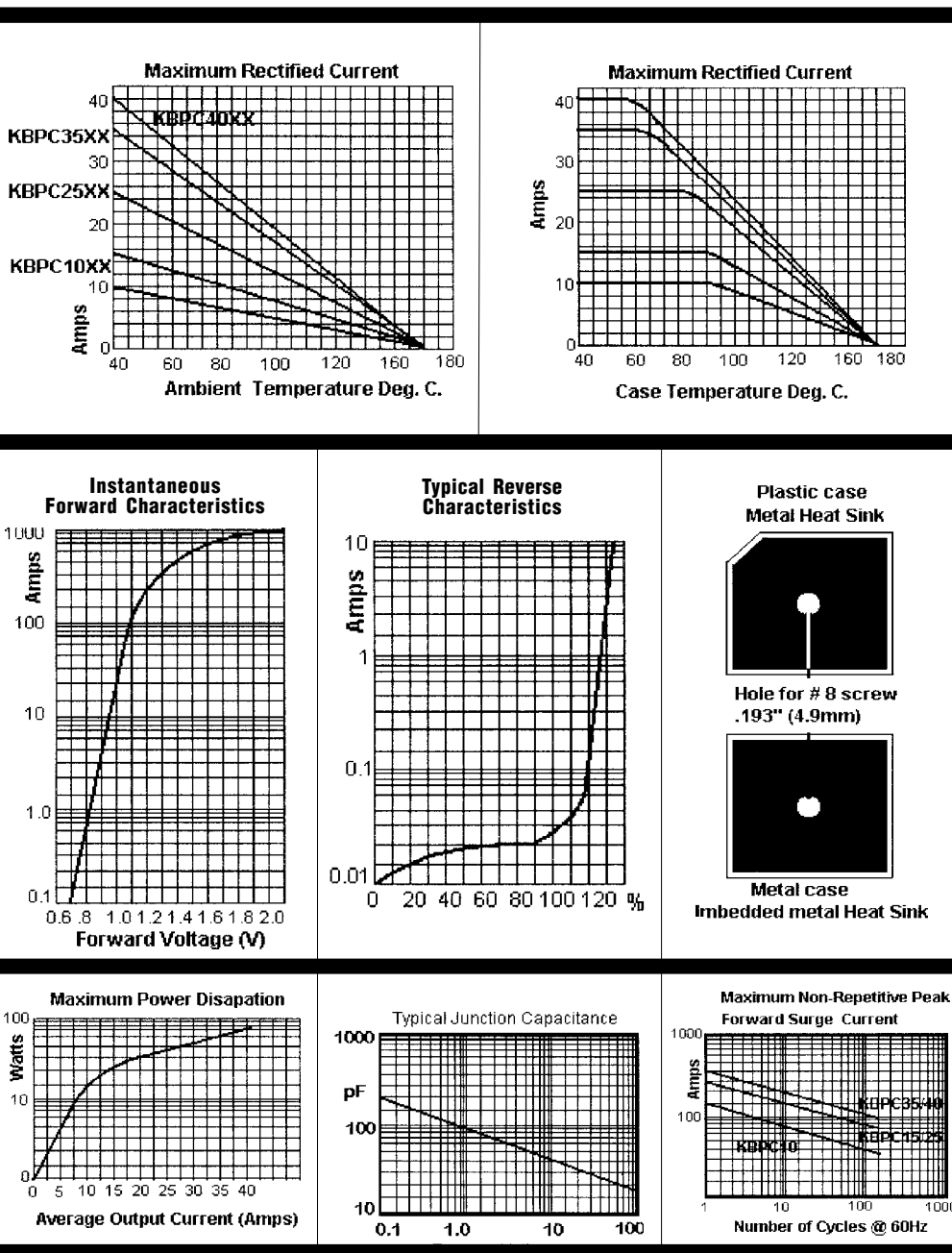
## Features

- BUILT-IN INTEGRAL HEAT SINK
- UP TO 400 AMP SURGE OVERLOAD RATING
- UL RECOGNITION AVAILABLE
- OPTION OF WIRE LEADS OR FASTON TERMINALS

Electrical Characteristics @ 25°C.		KBPC10 . . . 40XX Series								Units
Maximum Ratings		-00	-01	-02	-04	-06	-08	-10	-12	
Peak Repetitive Reverse Voltage... $V_{RRM}$		50	100	200	400	600	800	1000	1200	Volts
RMS Reverse Voltage... $V_{R(rms)}$		35	70	140	280	420	560	700	840	Volts
DC Blocking Voltage... $V_{DC}$		50	100	200	400	600	800	1000	1200	Volts
Average Forward Rectified Current... $I_{F(av)}$	KBPC10	.....	.....	.....	10	.....	.....	.....	.....	Amps
	KBPC15	.....	.....	.....	15	.....	.....	.....	.....	Amps
	KBPC25	.....	.....	.....	25	.....	.....	.....	.....	Amps
	KBPC35	.....	.....	.....	35	.....	.....	.....	.....	Amps
	KBPC40	.....	.....	.....	40	.....	.....	.....	.....	Amps
	KBPC40	.....	.....	.....	40	.....	.....	.....	.....	Amps
Non-Repetitive Peak Forward Surge Current... $I_{FSM}$	KBPC10	.....	.....	.....	200	.....	.....	.....	.....	Amps
	KBPC15	.....	.....	.....	300	.....	.....	.....	.....	Amps
	KBPC25	.....	.....	.....	300	.....	.....	.....	.....	Amps
	KBPC35	.....	.....	.....	400	.....	.....	.....	.....	Amps
	KBPC40	.....	.....	.....	400	.....	.....	.....	.....	Amps
	KBPC40	.....	.....	.....	400	.....	.....	.....	.....	Amps
Forward Voltage... $V_F$	KBPC10, $I_F = 5A$	.....	.....	.....	1.1	.....	.....	.....	.....	Volts
	KBPC15, $I_F = 7.5A$	.....	.....	.....	1.1	.....	.....	.....	.....	Volts
	KBPC25, $I_F = 12.5A$	.....	.....	.....	1.1	.....	.....	.....	.....	Volts
	KBPC35, $I_F = 17.5A$	.....	.....	.....	1.1	.....	.....	.....	.....	Volts
	KBPC40, $I_F = 20.0A$	.....	.....	.....	1.1	.....	.....	.....	.....	Volts
	KBPC40, $I_F = 20.0A$	.....	.....	.....	1.1	.....	.....	.....	.....	Volts
Isolation Voltage Case to Leads... $V_{ISO}$		.....	.....	.....	2500	.....	.....	.....	.....	Volts AC
DC Reverse Current... $I_R$ @ Rated DC Blocking Voltage per Leg	$T_A = 25^\circ C$	.....	.....	.....	5.0	.....	.....	.....	.....	$\mu A$ mps
	$T_A = 125^\circ C$	.....	.....	.....	500	.....	.....	.....	.....	$\mu A$ mps
Typical Thermal Resistance... $R_{\theta JC}$ Junction to Case per Leg		.....	.....	.....	1.9	.....	.....	.....	.....	$^\circ C / W$
Typical Junction Capacitance... $C_j$		.....	.....	.....	300	.....	.....	.....	.....	pF
Operating & Storage Temperature Range... $T_J, T_{STRG}$		.....	.....	.....	-55 to 150	.....	.....	.....	.....	$^\circ C$

# 10 to 40 Amp SINGLE PHASE SILICON BRIDGE

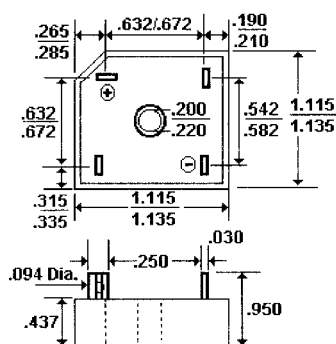
**KBPC10XX ... 40XX Series**



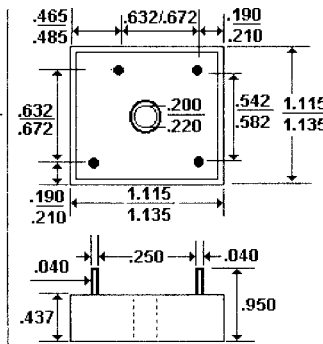
# 10 to 40 Amp SINGLE PHASE SILICON BRIDGE

**KBPC10XX . . . 40XX Series**

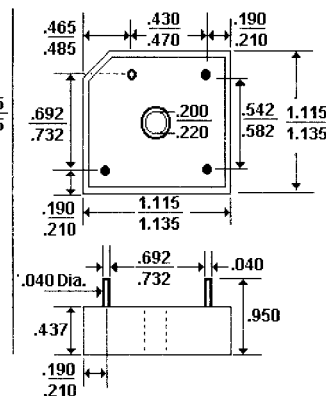
## Mechanical Dimensions



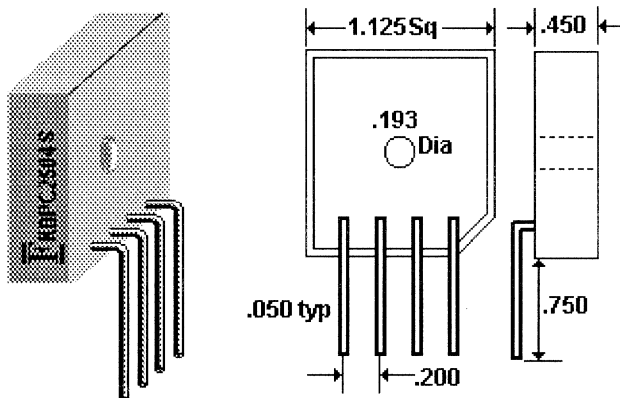
Plastic Case/Fastons



Metal Case/Wire Leads



Plastic Case/Wire Leads



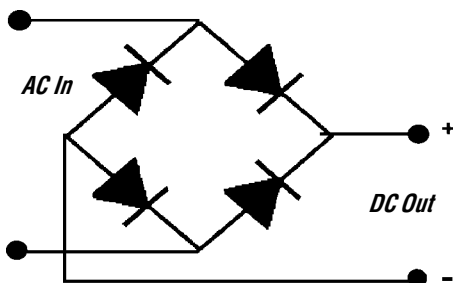
Ratings at  
25 Deg. C ambient  
temperature  
unless otherwise  
specified.

Single Phase Half  
Wave, 60 HZ  
Resistive or  
Inductive Load.

For Capacitive  
Load, Derate  
Current by 20%.

- NOTES:**
1. Corrosion-Resistant Terminals Designed for .250" Female Quick Connect Wrap Around or Solder.
  2. A Thin Film of Silicone Thermal Compound is Recommended Between Bridge and Mounting Surface for Improved Thermal Conduction.
  3. These FCI Bridges Are Also Available in Fast Recovery, In Positive and Negative Center Tap and in Double Configurations. Consult with FCI for Your Special Requirements.

# 10 to 40 Amp SINGLE PHASE SILICON BRIDGE



Case - Metal or Molded Plastic

Terminals - Plated .25" Faston or Plated Copper Wire Leads .040" Diameter

Weight - 0.706 Ounces, 20 Grams

Mounting Position - Any with Bolt Down with Silicone Thermal Compound Between Bridge and Mounting Surface for Optimum Heat Transfer

Transfer

Mounting Torque - 20 Inch Pound Max

## Ordering Information

FCI'S KBPC Series of Bridges Can Be Ordered with Options on Terminals and Case Materials.

### How To Specify Case Material and Terminal Options:

- For Metal Case, Order Suffix (1) "M"
- For Plastic Case, Order Suffix (1) "P"
- For Faston Terminals, Order Suffix (2) "F"
- For Wire Lead Terminals, Order Suffix (2) "W"
- For a UL Recognized Device, Order Suffix (3) "U"

## KBPC Series Examples

To Order a 25 Amp, 400 Volt Bridge with Faston Leads and a Plastic Case:

Specify - **KBPC2504PF** . . . Where "P" = Plastic and "F" = Faston Terminals

To Order a 35 Amp, 800 Volt Bridge with Wire Leads and a Metal Case:

Specify - **KBPC3508MW** . . . Where "M" = Metal and "W" = Wire Leads (Terminals)

To Order a 15 Amp, 200 Volt, UL Recognized Bridge with Wire Leads and a Plastic Case:

Specify - **KBPC1502PWU** . . . Where "P" = Plastic and "W" = Wire Leads (Terminals) and "U" = UL Recognized

**NOTE:** Fast Recovery Bridges (Diodes) Are Available; Please Contact FCI Components.

## KBPC - "S" Series Examples

To Order Bridges with the "In-Line" Pin Configuration, Select the Current and Voltage Desired and Add "S" as the Suffix, as shown in the following example.

To Order a 35 Amp, 800 Volt Bridge with In-Line Wire Leads:

Specify - **KBPC3508S** . . . Where "S" = In-Line Wire Lead Terminals