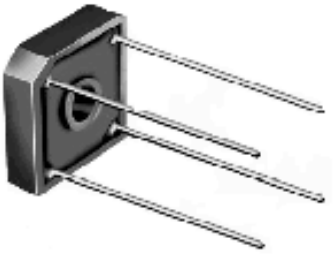
Semiconductor

*Data Sheet*

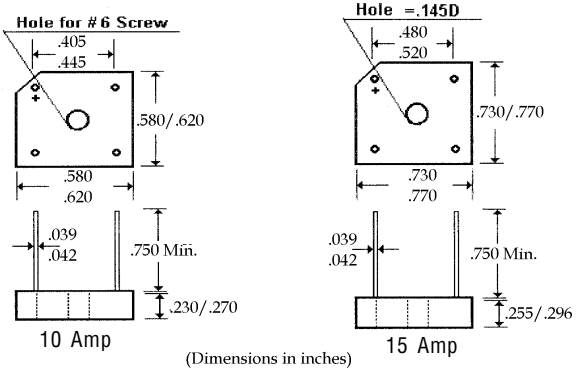
# 10 to 15 Amp SINGLE PHASE SILICON BRIDGE

***KBPSC10 & 15 Series***

## Description



## Mechanical Dimensions




(Dimensions in inches)

## Features

- **BUILT-IN INTEGRAL HEAT SINK**
- **UL RECOGNITION AVAILABLE**
- **SMALL PACKAGE**
- **UP TO 300 AMP SURGE OVERLOAD RATING**
- **LOW LEAKAGE CURRENT, LESS THAN 1μA**

| | ***KBPSC10 . . . 15 Series*** | | | | | | | **Units** |
|---|---|---|---|---|---|---|---|---|
| **Maximum Ratings** | **-00** | **-01** | **-02** | **-04** | **-06** | **-08** | **-10** | |
| Peak Repetitive Reverse Voltage...$V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| RMS Reverse Voltage...$V_{R(rms)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| DC Blocking Voltage...$V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| Average Forward Rectified Current...$I_{F(av)}$ KBPSC10 | | | | 10 | | | | Amps |
| KBPSC15 | | | | 15 | | | | Amps |
| Non-Repetitive Peak Forward Surge Current...$I_{FSM}$ KBPSC10 | | | | 200 | | | | Amps |
| KBPSC15 | | | | 300 | | | | Amps |
| Operating & Storage Temperature Range...$T_J$, $T_{STRG}$ | | | | -65 to175 | | | | ℃ |
| **Electrical Characteristics** | | | | | | | | |
| Maximum Forward Voltage...$V_F$ | | | | 1.1 | | | | Volts |
| Isolation Voltage Case to Leads...$V_{ISO}$ | | | | 2000 | | | | Volts AC |
| Maximum DC Reverse Current...$I_R$ @ Rated DC Blocking Voltage | | | | 10 | | | | μAmps |
| Maximum Thermal Resistance...$R_{\theta JC}$ *(Note 1)* | | | | 1.2 | | | | °C/W |

**NOTES:** 1. Thermal Resistance from Junction to Case for Total Bridge.

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Fig. 1 — MAXIMUM FORWARD SURGE CURRENT

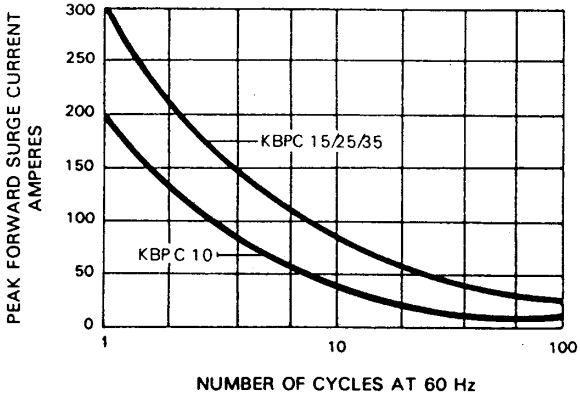


Fig. 2 — DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

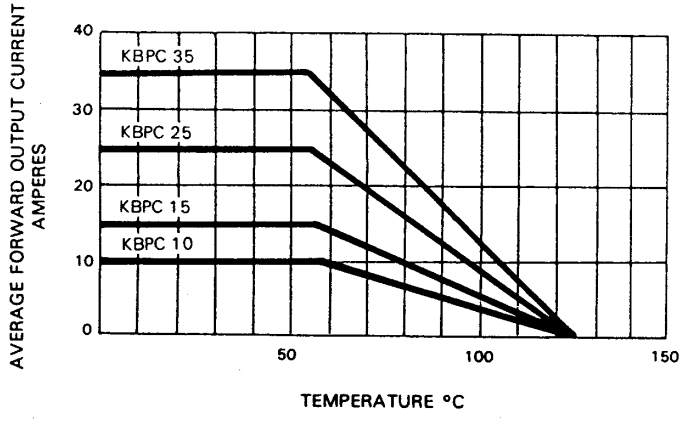


Fig. 3 — TYPICAL FORWARD CHARACTERISTICS

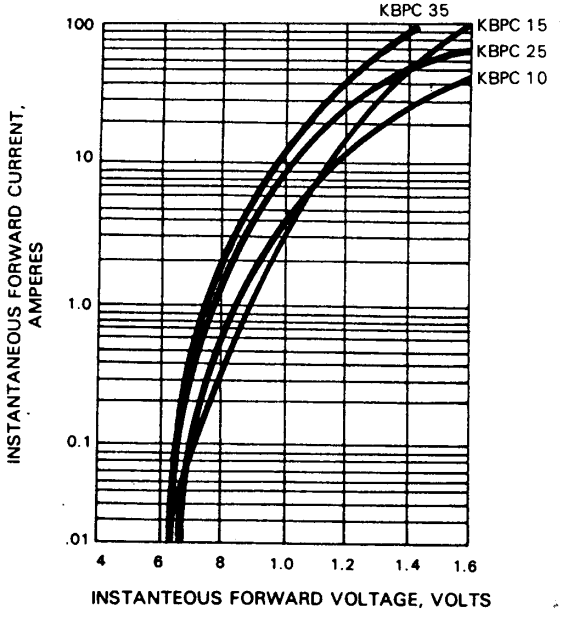


Fig. 4 — TYPICAL REVERSE CHARACTERISTICS