

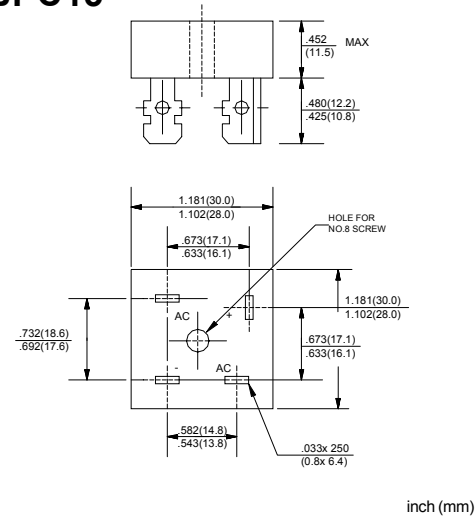
SILICON BRIDGE RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 15.0 A

FEATURES

- ◇ Rating to 1000V PRV
- ◇ 300 amperes surge capability
- ◇ High efficiency
- ◇ Electrically isolated metal case for maximum heat dissipation
- ◇ Mounting: thru hole for # 8 screw mounting

KBPC15



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 by 20%.

| | | KBPC 15005 | 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_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward Output current @ $T_A=25^\circ\text{C}$ | $I_{F(AV)}$ | 15.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load | I_{FSM} | 300.0 | | | | | | | A |
| Maximum instantaneous forward voltage @ 7.5 A | V_F | 1.2 | | | | | | | V |
| Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$ | I_R | 10.0 1.0 | | | | | | | A mA |
| Operating junction temperature range | T_J | - 55 ---- + 125 | | | | | | | °C |
| Storage temperature range | T_{STG} | - 55 ---- + 150 | | | | | | | °C |

FIG.1 – PEAK FORWARD SURGE CURRENT

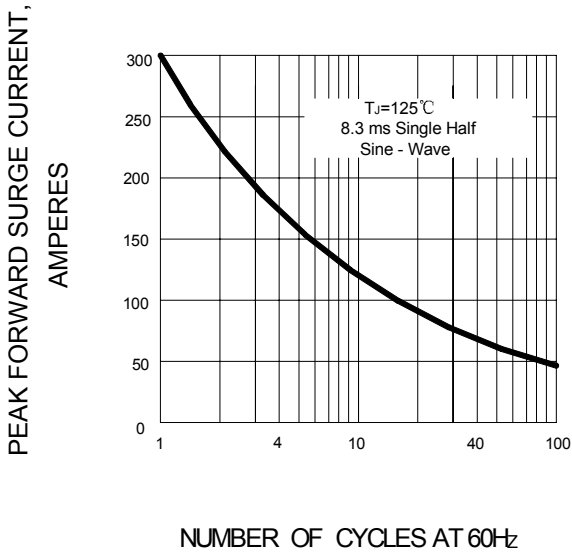


FIG.2 – FORWARD DERATING CURVE

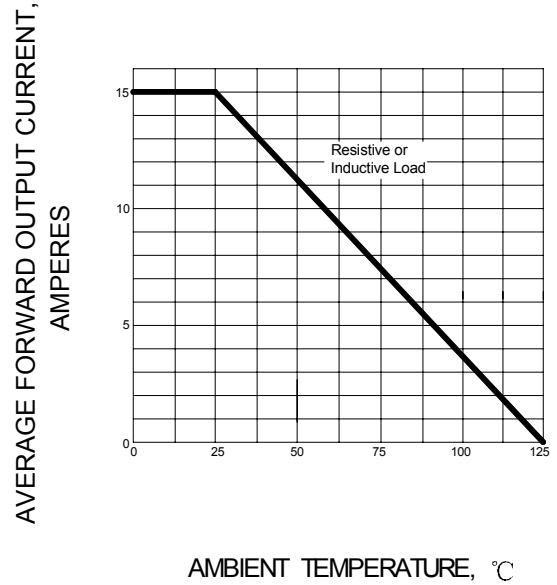


FIG.3 – TYPICAL FORWARD CHARACTERISTIC

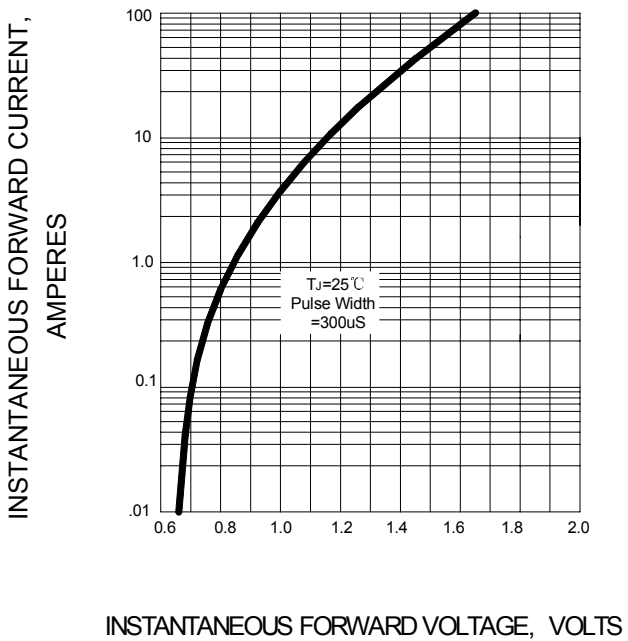


FIG.4 – TYPICAL REVERSE CHARACTERISTIC

