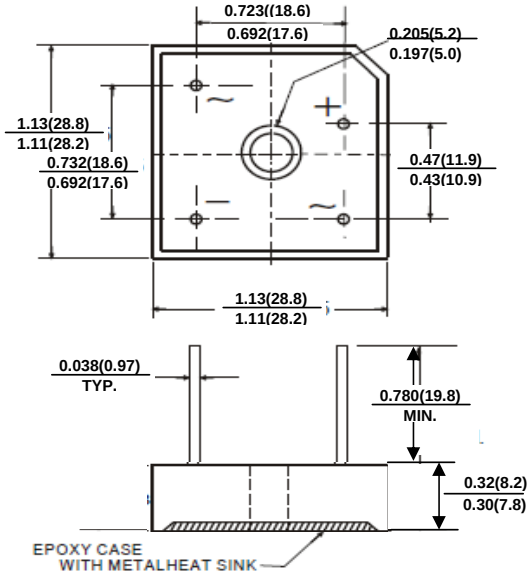
# KBPC25005WN THRU KBPC2510WN

## Single Phase 25.0 AMPS. Silicon Bridge Rectifiers

*Reverse Voltage - 50 to 1000 Volts Forward Current - 25.0 Ampere*

**BR-35WN**




*Dimensions in inches and (millimeters)*

## FEATURES

- High surge forward current capability
- Plastic material has underwriters laboratory flammability classification 94V-0
- Mounting position:Any

## MECHANICAL DATA

**Case**: Molded plastic
**Terminals**: Solderable per MIL-STD-750，Method 2026
**Lead:** solder plated
**Polarity:** As marked

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwis e specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

| PARAMETER | *SYMBOLS* | KBPC 25005WN | KBPC 2501WN | KBPC 2502WN | KBPC 2504WN | KBPC 2506WN | KBPC 2508WN | KBPC 25010WN | UNITS |
|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive 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 |
| Minimum DC Breakdown Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current With heatsink Tc =55°C | $I_{F(AV)}$ | 25 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method ) | $I_{FSM}$ | 400 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 12.5A | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC Reverse Current @$T_A$= 25°C<br>rated DC blocking voltage per leg @$T_A$= 125°C | $I_R$ | 10.0<br>500 | | | | | | | μA |
| Typical Thermal Resistance (Note 1) | $R_{\theta JC}$ | 1.4 | | | | | | | °C/W |
| $I^2t$ Rating for fusing(t<8.3ms) | $I^2t$ | 660 | | | | | | | $A^2S$ |
| Mounting Torque (Note 2) | $T_{OR}$ | 20 | | | | | | | kg·cm |
| Dielectric Strength at Terminals to case，AC 1 minute | $V_{dis}$ | 2.5 | | | | | | | KV |
| Operating Temperature Range | $T_J$ | -55 to +125 | | | | | | | °C |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | °C |

**Note**: 1.Between junction and case, With heatsink
2.Recommend torque：10kg•cm

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## RATINGS AND CHARACTERISTIC CURVES

**FIG. 1-MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT**

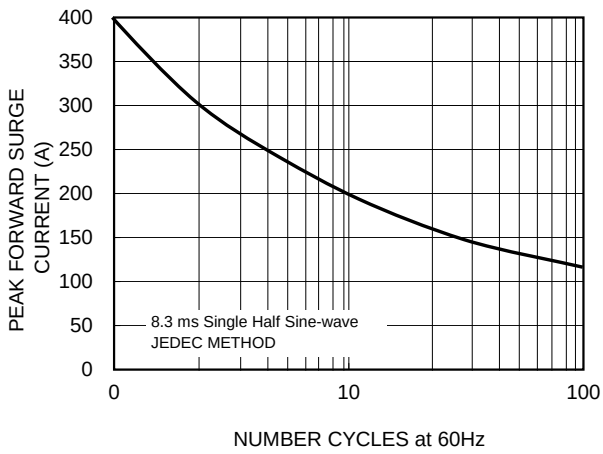


**FIG. 2 MAXIMUM FORWARD CURRENT DERATING CURVE**

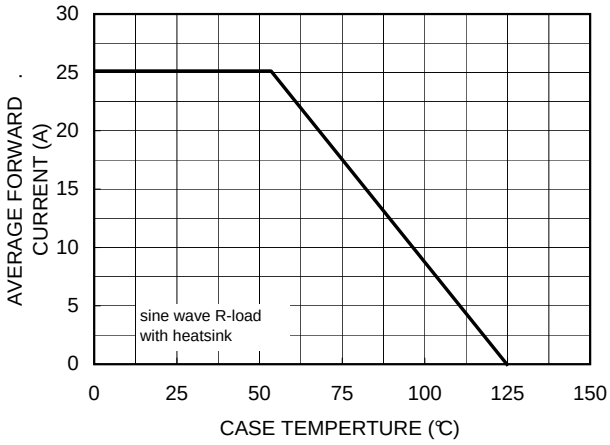


**FIG. 3-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT**

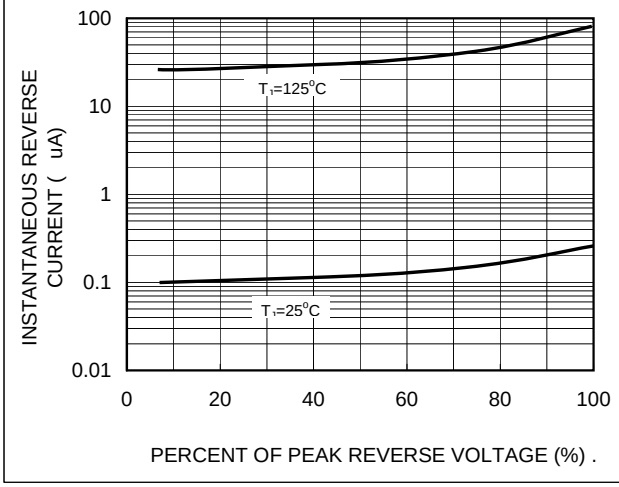


**FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT**