

## DATA SHEET

### KBPC35005W SERIES

SINGLE-PHASE BRIDGE RECTIFIER

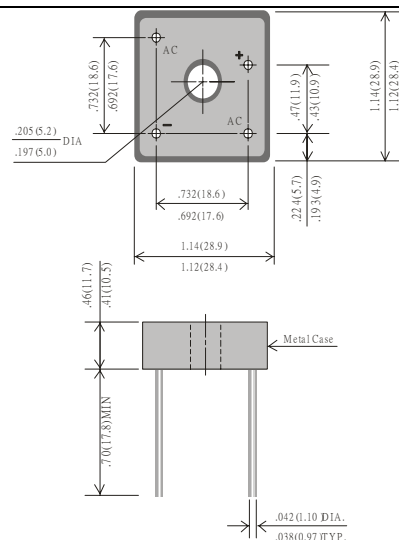
**VOLTAGE** 50~1000 Volts **CURRENT** 35 Ampere

#### FEATURES

- TYPICAL IR LESS THAN 1 $\mu$ A
- CURRENT RATING 35A
- REVERSE VOLTAGE RATING UP TO 1000V
- HIGH TEMPERATURE SOLDERING GUARANTEED :  
260°C /10 SECOND

#### MECHANICAL DATA

- CASE : MOLDED BODY
- TERMINALS : UNIVERSAL .25" (6.35mm) FASTEN
- MOUNTING METHOD : BOLT DOWN ON HEAK SINK WITH SILICON THERMAL COMPOUND BETWEEN BRIDGE AND MOUNTING SURFACE FOR MAXIMUM HEAT TRANSFER EFFICIENCY
- WEIGHT : 0.93 OUNCE, 26.4 GRAMS



CASE : MB-35W

DIMENSIONS IN INCHES AND (MILLIMETERS)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED.

| PARAMETER                                                                                          | SYMBOL          | KBPC<br>35005W | KBPC<br>3501W | KBPC<br>3502W | KBPC<br>3504W | KBPC<br>3506W | KBPC<br>3508W | KBPC<br>3510W | 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 RECTIFIED CURRENT<br>.375" (9.5mm) LEAD LENGTH AT $T_A = 50^\circ\text{C}$ | $I_O$           | 35             |               |               |               |               |               |               | A                         |
| PEAK FORWARD SURGE CURRENT SINGLE SINE-WAVE<br>SUPERIMPOSED ON RATED LOAD                          | $I_{FSM}$       | 400            |               |               |               |               |               |               | A                         |
| TYPICAL THERMAL RESISTANCE                                                                         | $R_{\theta JL}$ | 1.5            |               |               |               |               |               |               | $^\circ\text{C}/\text{W}$ |
| RATING FOR FUSING ( $t < 8.3\text{ms}$ )                                                           | $I^2t$          | 664            |               |               |               |               |               |               | $\text{A}^2\text{s}$      |
| STORAGE TEMPERATURE RANGE                                                                          | $T_{STG}$       | -55 TO + 150   |               |               |               |               |               |               | $^\circ\text{C}$          |
| OPERATING TEMPERATURE RANGE                                                                        | $T_J$           | -55 TO + 125   |               |               |               |               |               |               | $^\circ\text{C}$          |

ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^\circ\text{C}$  UNLESS OTHERWISE NOTED)

| PARAMETER                                                            | SYMBOL | KBPC<br>35005W | KBPC<br>3501W | KBPC<br>3502W | KBPC<br>3504W | KBPC<br>3506W | KBPC<br>3508W | KBPC<br>3510W | UNITS         |
|----------------------------------------------------------------------|--------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| MAXIMUM INSTANTANEOUS FORWARD VOLTAGE PER<br>BRIDGE ELEMENT AT 17.5A | $V_F$  | 1.1            |               |               |               |               |               |               | V             |
| MAXIMUM REVERSE CURRENT, PER<br>ELEMENT@RATED $V_R$                  | $I_R$  | 10             |               |               |               |               |               |               | $\mu\text{A}$ |
|                                                                      |        | 1.0            |               |               |               |               |               |               | mA            |

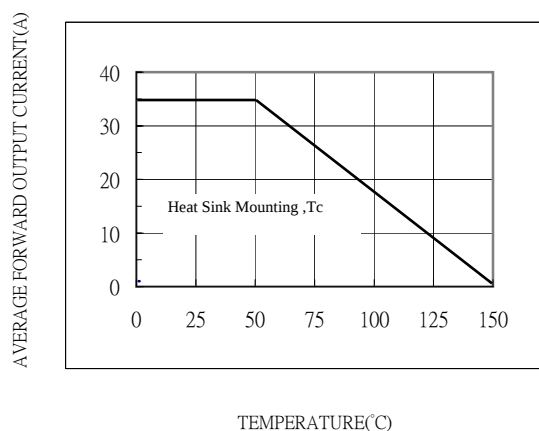


Fig.1-DERATING CURVE OUTPUT RECTIFIED CURRENT

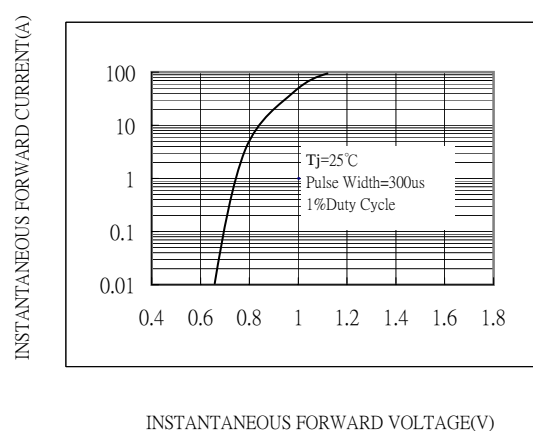


Fig.2-TYPICAL FORWARD CHARACTERISTICS PER LEG

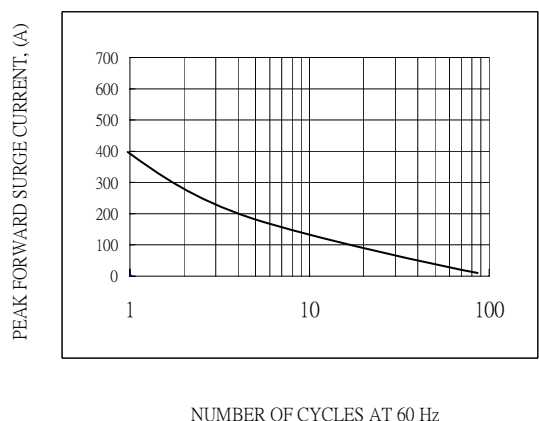


Fig.3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

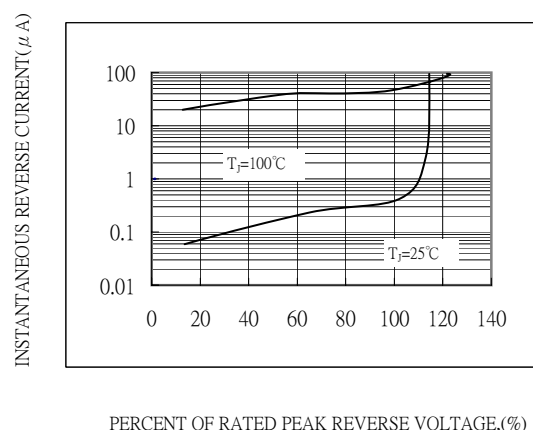


Fig.4-TYPICAL REVERSE CHARACTERISTIC PER LEG

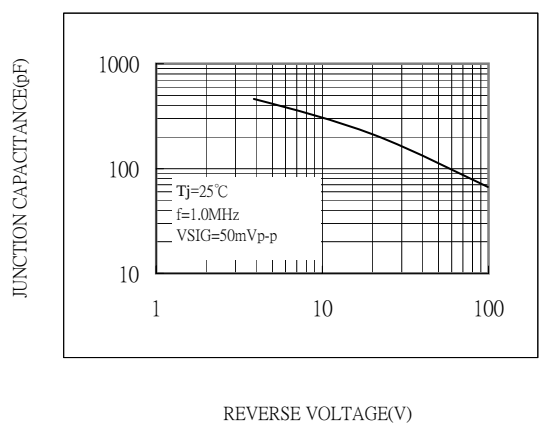


Fig.5-TYPICAL JUNCTION CAPACITANCE PER LEG

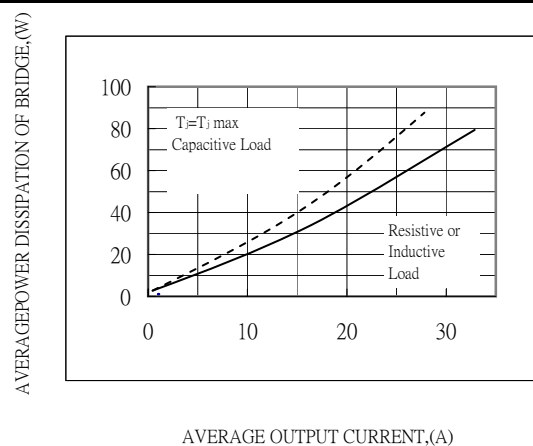


Fig.6-MAXIMUM POWER DISSIPATION