



# KBPC15005 - KBPC1510

# SILICON BRIDGE RECTIFIERS

**PRV : 50 - 1000 Volts**

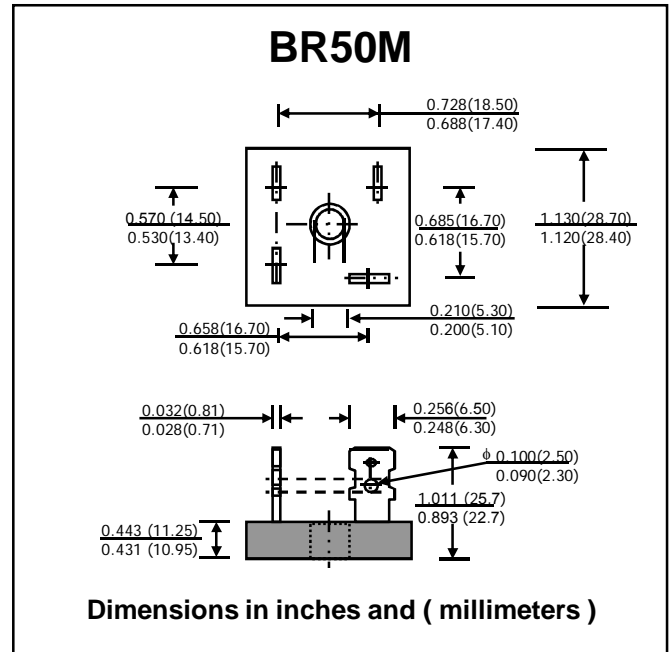
**Io : 15 Amperes**

**FEATURES :**

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Pb / RoHS Free

**MECHANICAL DATA :**

- \* Case : Metal Case
- \* Epoxy : UL94V-0 rate flame retardant
- \* Terminals : plated .25" (6.35 mm). Faston
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency.
- \* Weight : 17.1 grams



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

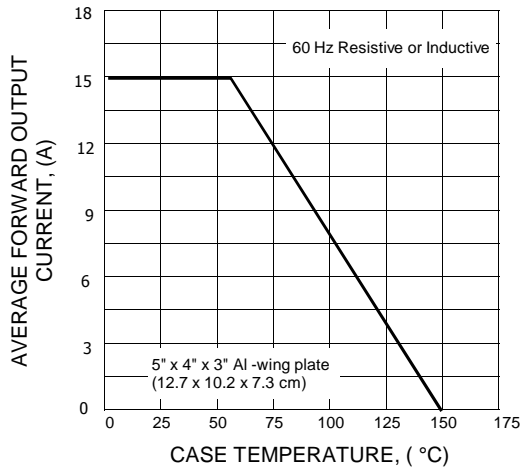
RATING	SYMBOL	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Current Tc = 55 °C	I <sub>F(AV)</sub>	15							A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	300							A
Current Squared Time at t < 8.3 ms.	I <sup>2</sup> t	375							A <sup>2</sup> S
Maximum Forward Voltage per Diode at I <sub>F</sub> = 7.5 A	V <sub>F</sub>	1.2							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	10							µA
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	2.0							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 50 to + 150							°C

Note : (1) Thermal Resistance from junction to case with units mounted on a 5" x 4" x 3" (12.7 x 10.2 x 7.3 cm) Al - wing Plate

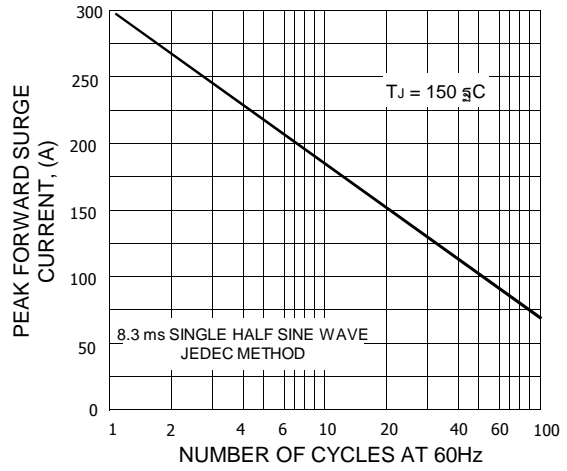


**RATING AND CHARACTERISTIC CURVES (KBPC15005 - KBPC1510)**

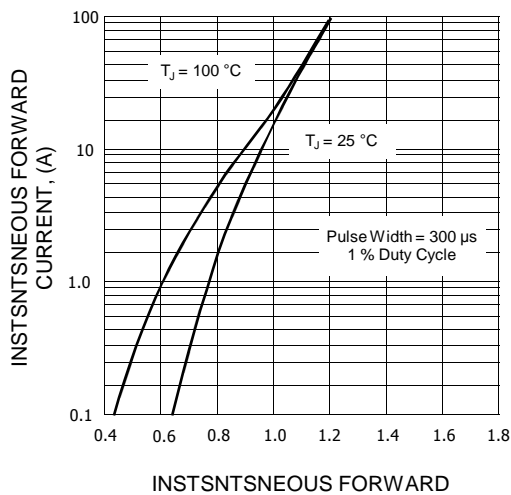
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

