



## KBPC25005-KBPC2510

## SINGLE-PHASE SILICON BRIDGE RECTIFIER

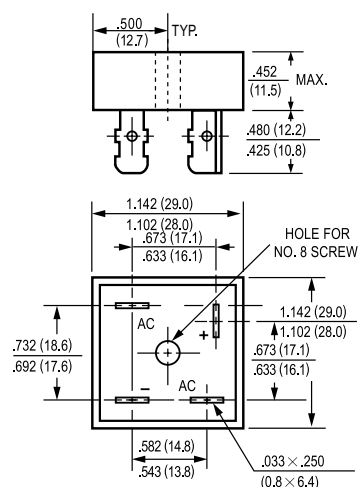
VOLTAGE RANGE - 50 TO 1000 Volts CURRENT - 25 Amperes

### MECHANICAL DATA

- \* Case: Metal, electrically isolated
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Plated .25"(6.35mm) Faston luge, solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 30 grams

### FEATURES

- \* Metal case for Maximum Heat Dissipation
- \* Surge overload ratings-400 Amperes
- \* Low forward voltage drop



MB-25



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive load.

For capacitive load, derate current by 20%

PARAMETER		SYMBOL	KBPC25005 MB2505	KBPC2501 MB251	KBPC2502 MB252	KBPC2504 MB254	KBPC2506 MB256	KBPC2508 MB258	KBPC2510 MB2510	UNITS
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>C</sub> = 55°C		I <sub>O</sub>	25							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave Superimposed on rated load (JEDEC Method)		I <sub>FSM</sub>	400							Amps
Maximum Forward Voltage Drop per element at 12.5A DC		V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T <sub>A</sub> = 25°C	I <sub>R</sub>	10							uAmps
	@T <sub>A</sub> = 100°C		500							
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)		I <sup>2</sup> t	374							A <sup>2</sup> Sec
Typical Junction Capacitance ( Note 1 )		C <sub>J</sub>	300							pF
Typical Thermal Resistance ( Note 2 )		R θ <sub>Jc</sub>	2.5							°C/W
Operating and Storage Temperature Range		T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C

Notes: 1.Measured at 1 MHz and applied reverse voltage of 4.0 volts  
2.Thermal Resistance from Junction to Case per leg.



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### RATING AND CHARACTERISTICS CURVES

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

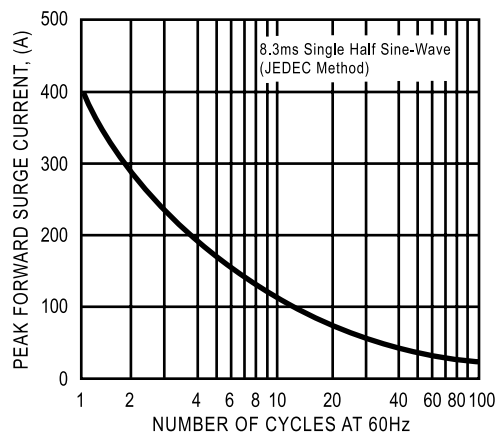


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

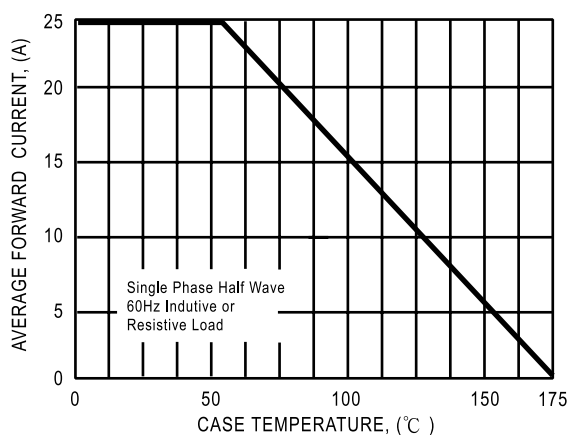


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

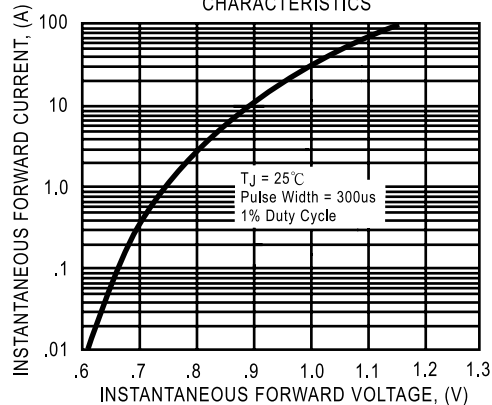


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

