



## SINGLE-PHASE SILICON BRIDGE RECTIFIER

### KBPC25005-KBPC2510

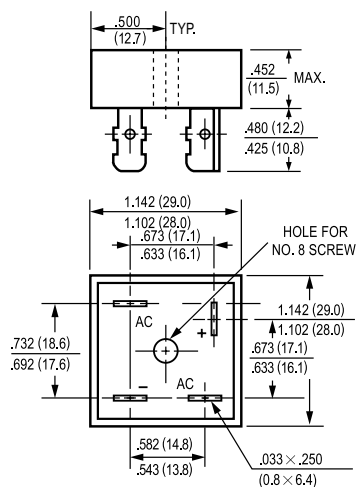
**VOLTAGE RANGE - 50 TO 1000 Volts CURRENT - 25 Amperes**

#### 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 quaranteed
- \* 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**



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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 capacitate load, derate current by 20%

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

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

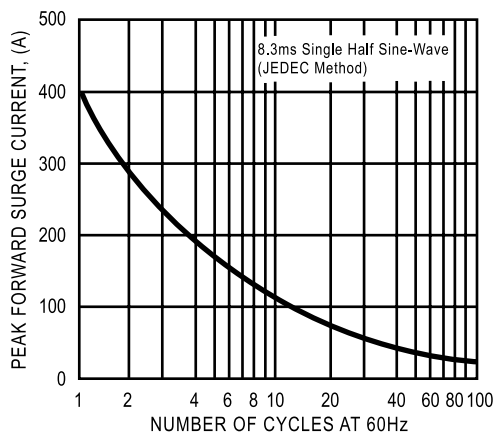


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

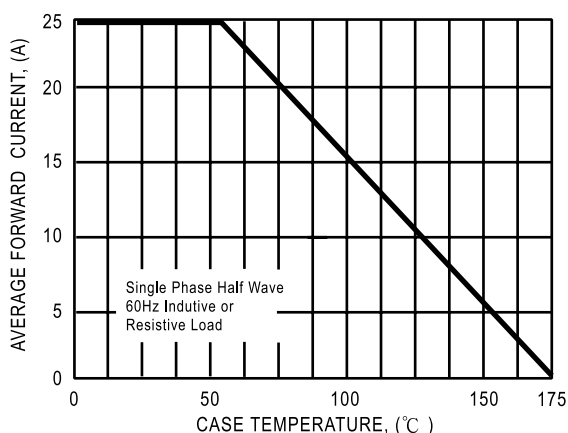


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

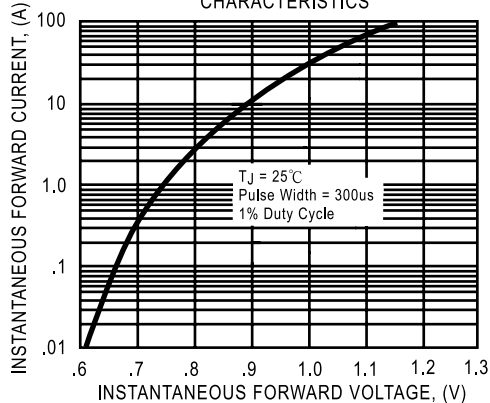


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

