



SINGLE-PHASE SILICON BRIDGE RECTIFIER

KBPC25005-KBPC2510

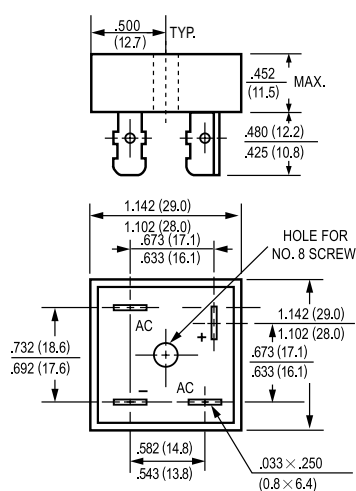
VOLTAGE RANGE - 50 TO 1000 Volts CURRENT - 25 Amperes

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							A^2Sec
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

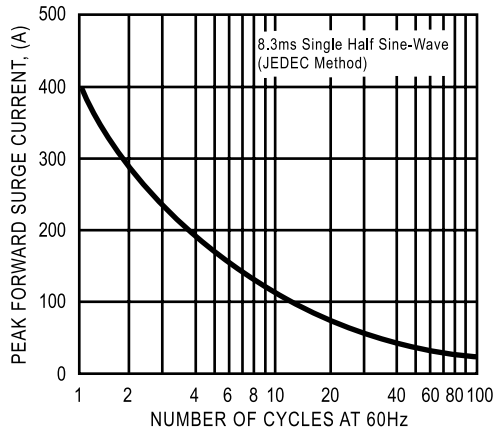


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

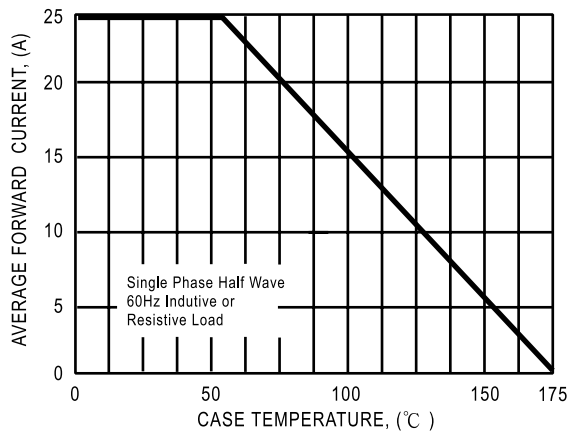


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

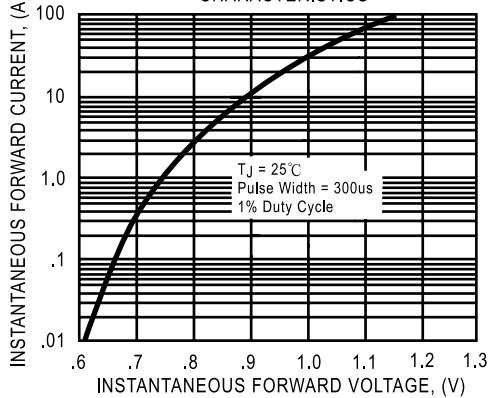


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

