



SINGLE-PHASE SILICON BRIDGE RECTIFIER

KBPC35005-KBPC3510

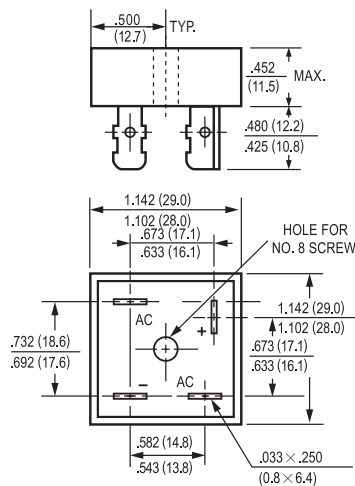
VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 35 Amperes

MECHANICAL DATA

- * Case: Metal, electrically isolated
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Plated .25" (6.35mm) Faston lugs, 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°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	KBPC35005	KBPC3501	KBPC3502	KBPC3504	KBPC3506	KBPC3508	KBPC3510	UNITS	
		MB3505	MB351	MB352	MB354	MB356	MB358	MB3510		
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 17.5A DC	V_F	1.1							Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	@ $T_A = 25^\circ\text{C}$	10							uAmps
		@ $T_A = 100^\circ\text{C}$	500							
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	664							A^2Sec	
Typical Junction Capacitance (Note 1)	C_J	300							pF	
Typical Thermal Resistance (Note 2)	$R_{\theta_{JC}}$	2.2							$^\circ\text{C}/\text{W}$	
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 legs.



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RATING AND CHARACTERISTIC CURVES

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

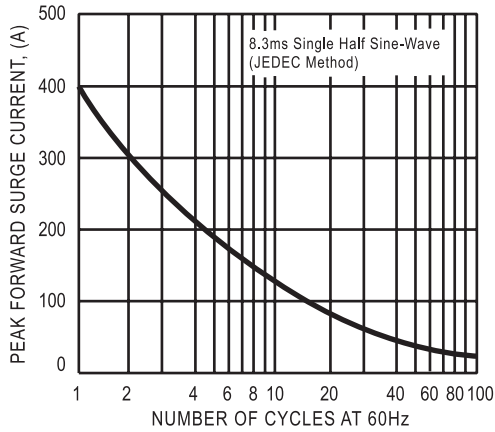


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

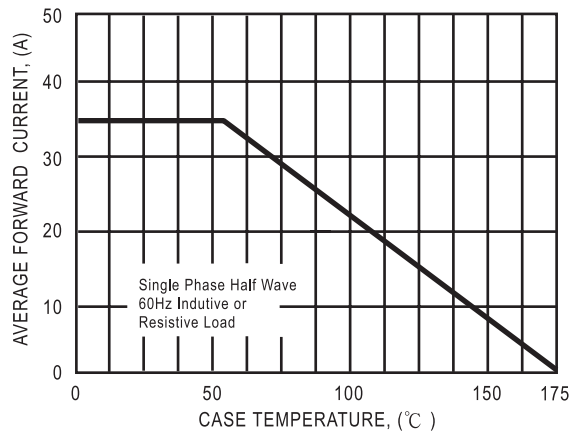


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

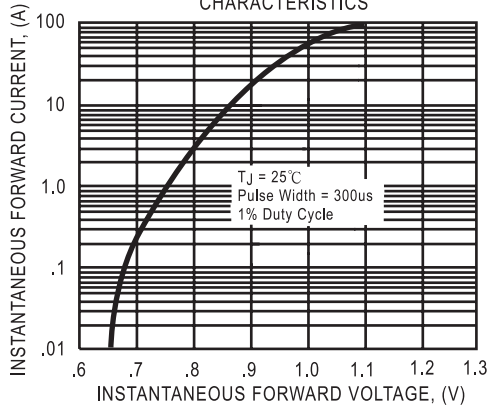


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

