



## SINGLE-PHASE SILICON BRIDGE RECTIFIER

### KBPC35005-KBPC3510

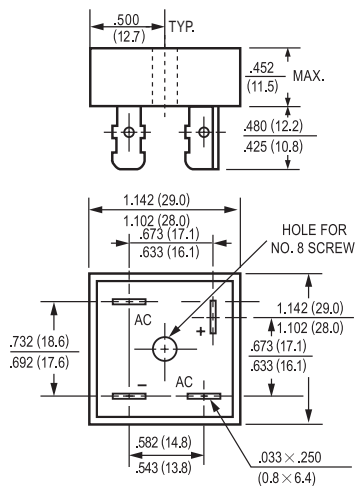
**VOLTAGE RANGE - 50 to 1000 Volts CURRENT - 35 Amperes**

#### 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 $T_C = 55^\circ C$	$I_O$	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	$I_R$	@ $T_A = 25^\circ C$	10							uAmps
		@ $T_A = 100^\circ C$	500							
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	664							$A^2Sec$	
Typical Junction Capacitance ( Note 1 )	$C_J$	300							pF	
Typical Thermal Resistance ( Note 2 )	$R_{\theta_{JC}}$	2.2							$^\circ C/W$	
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ C$	

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

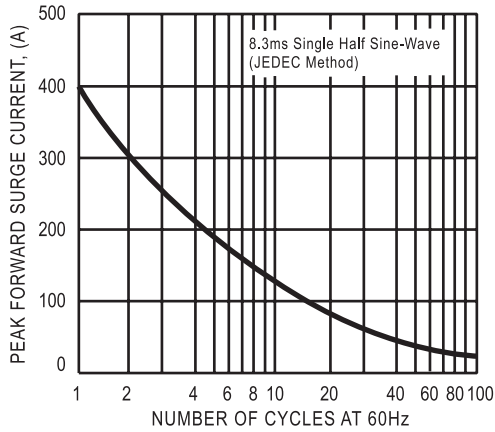


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

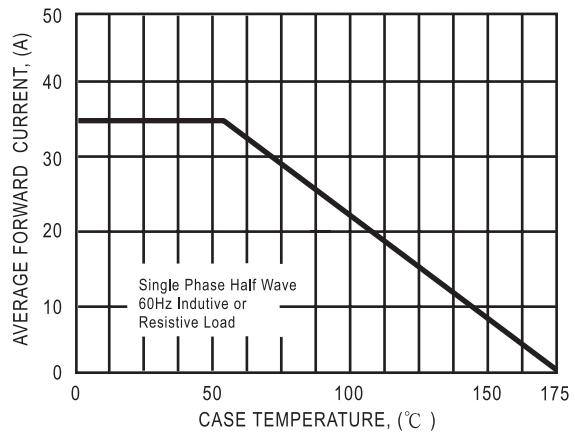


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

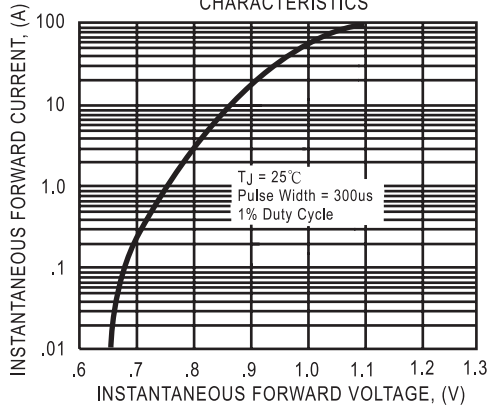


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

