DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

KBPC 25005W / MB 2505W
THRU
KBPC 2510W / MB 2510W

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

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

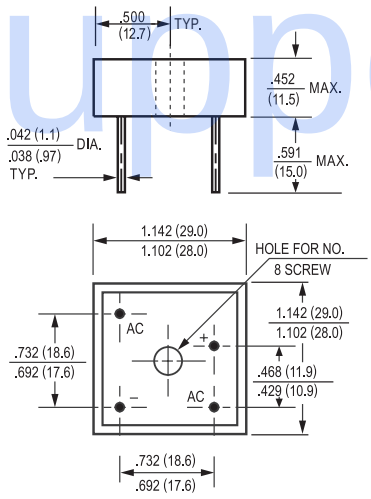
FEATURES

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

MECHANICAL DATA

* Case: Metal, electrically isolated
* Epoxy: UL 94V-0 rate flame retardant
* Lead: MIL-STD-202E, Method 208 guaranteed
* Polarity: As marked
* Mounting position: Any
* Weight: 30 grams

MB-25W



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%.

		SYMBOL	KBPC 25005W MB2505W	KBPC 2501W MB251W	KBPC 2502W MB252W	KBPC 2504W MB254W	KBPC 2506W MB256W	KBPC 2508W MB258W	KBPC 2510W MB2510W	UNITS
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 Output Current at T_C = 55°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	@T_A = 25°C	I_R	10							uAmps
DC Blocking Voltage per element	@T_A = 100°C		500							
I^2t Rating for Fusing (t<8.3ms)		I^2t	374							A^2Sec
Typical Junction Capacitance (Note1)		C_J	300							pF
Typical Thermal Resistance (Note 2)		$R\theta JC$	2.5							°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-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.

NEXT BACK EXIT

RATING AND CHARACTERISTIC CURVES (KBPC25005W THRU KBPC2510W / MB2505W THRU MB2510W)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

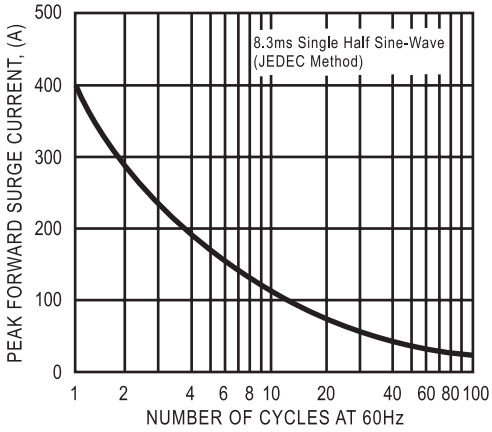


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

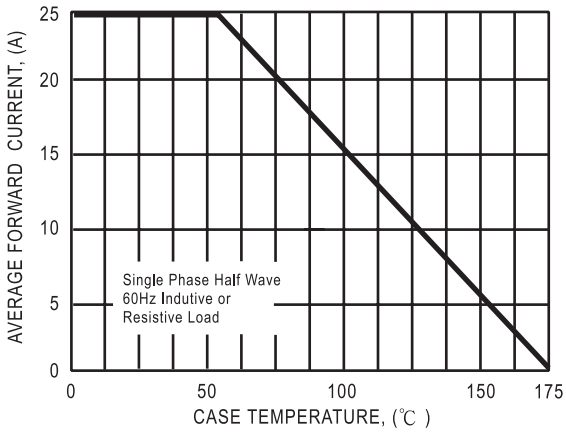


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

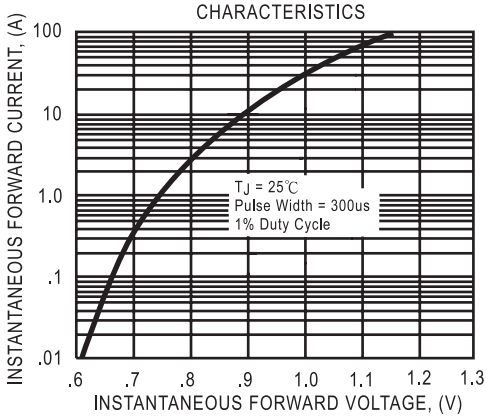


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS