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

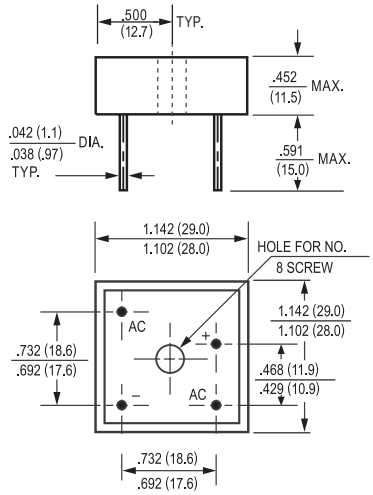
MECHANICAL DATA

* 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

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%.

MB-25W



Dimensions in inches and (millimeters)

		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 Tc = 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

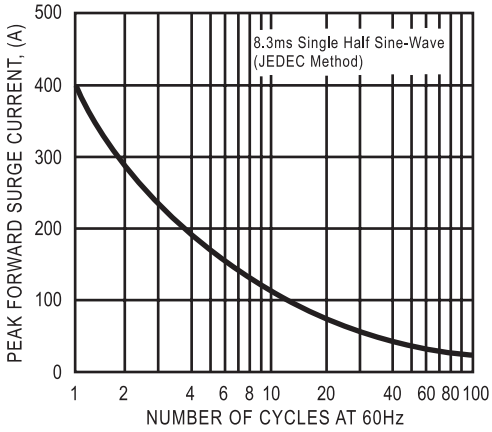


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

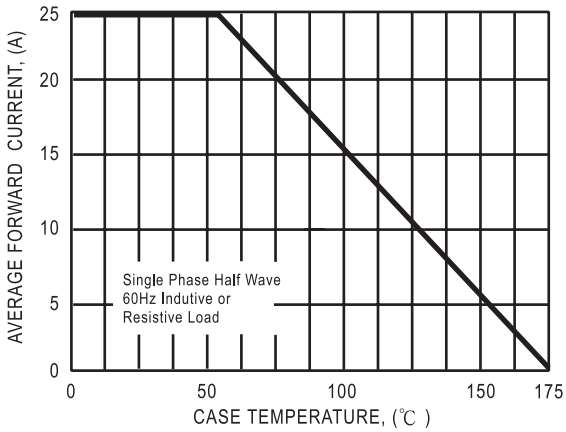


FIG. 3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

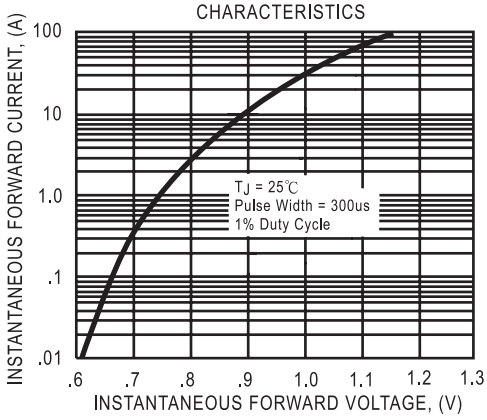


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS