



DC COMPONENTS CO., LTD.
RECTIFIER SPECIALISTS

**MBR3505
THRU
MBR3510**

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER
VOLTAGE RANGE - 50 to 1000 Volts *CURRENT - 35 Amperes*

FEATURES

- * Plastic case with heatsink for Maximum Heat Dissipation
- * Diffused Junction
- * High current capability
- * Surge overload ratings - 400 Amperes
- * Low forward voltage drop
- * High Reliability

MECHANICAL DATA

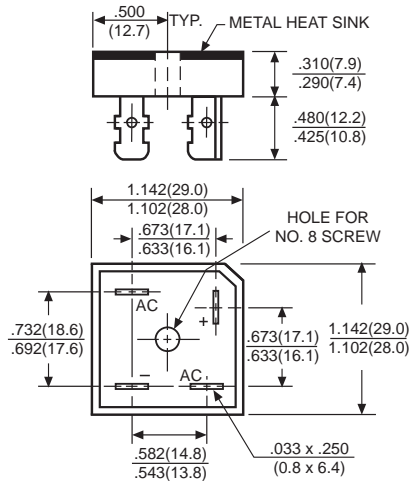
- * Case: Molded plastic with heatsink
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 25 grams approx.

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%.



MBR-25



Dimensions in inches and (millimeters)

	SYMBOL	MBR3505	MBR351	MBR352	MBR354	MBR356	MBR358	MBR3510	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	VRMS	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at Tc = 55°C	Io	35							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	400							Amps
Maximum Forward Voltage Drop per element at 17.5A DC	Vf	1.1							Volts
Maximum DC Reverse Current at Rated	@ TA = 25°C	10							μAmps
	@ TA = 100°C	500							
DC Blocking Voltage per element		500							
I ² t Rating for Fusing (t<8.3ms)	I ² t	664							A ² Sec
Typical Junction Capacitance (Note1)	Cj	300							pF
Typical Thermal Resistance (Note 2)	RθJC	2.2							°C/W
Operating and Storage Temperature Range	Tj,Tstg	-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.

RATING AND CHARACTERISTIC CURVES (MBR3505 THRU MBR3510)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

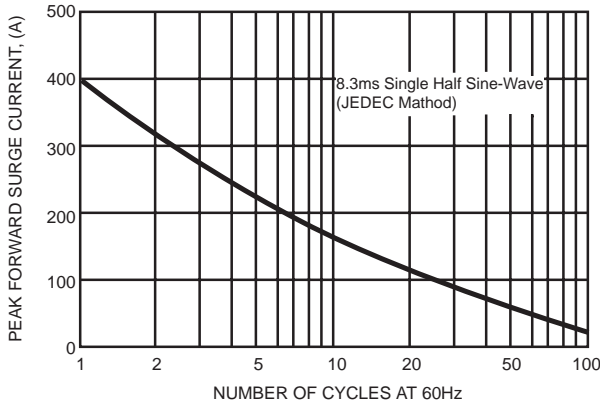


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

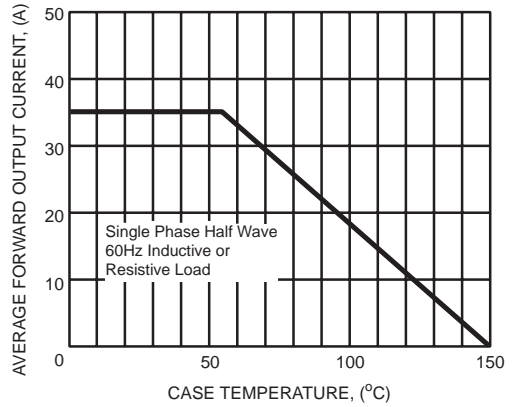


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

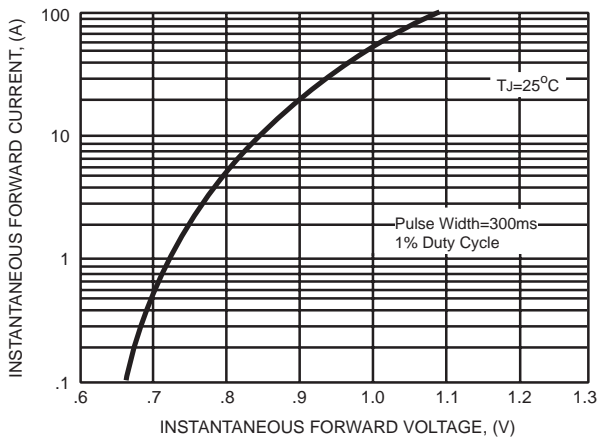
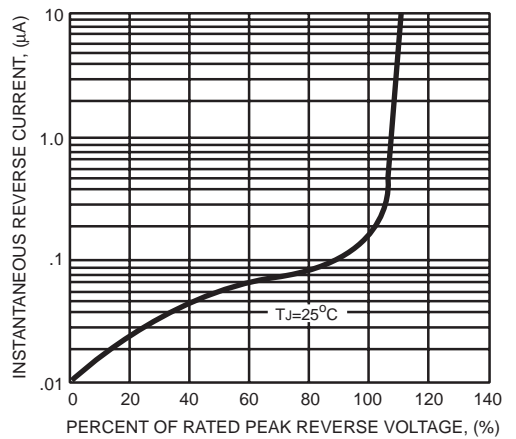


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS





DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

KBPC / MB
35005W / 3505W
THRU
KBPC / MB
3510W / 3510W

TECHNICAL SPECIFICATIONS OF SINGLE-PHASE SILICON BRIDGE RECTIFIER

VOLTAGE RANGE - 50 to 1000 Volts

CURRENT - 35 Amperes

FEATURES

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

MECHANICAL DATA

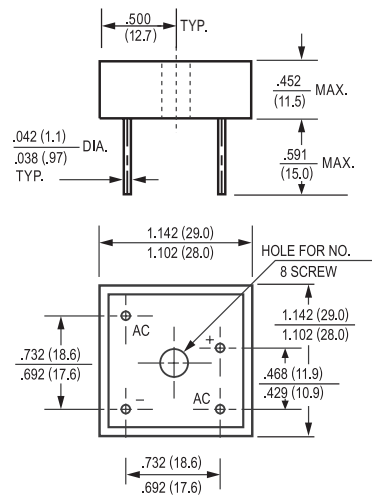
- * Case: Metal, electrically isolated
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 30 grams

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



	KBPC 35005W	KBPC 3501W	KBPC 3502W	KBPC 3504W	KBPC 3506W	KBPC 3508W	KBPC 3510W
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	SYMBOL	MB3505W	MB351W	MB352W	MB354W	MB356W	MB358W	MB3510W	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	35							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	I _R	@ T _A = 25°C						10	uAmps
DC Blocking Voltage per element		@ T _A = 100°C						500	
I ² t Rating for Fusing (t<8.3ms)	I ² t	664							A ² Sec
Typical Junction Capacitance (Note1)	C _J	300							pF
Typical Thermal Resistance (Note 2)	R _{θJC}	2.2							°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.

RATING AND CHARACTERISTIC CURVES

(KBPC35005W MB3505W THRU KBPC3510W MB3510W)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

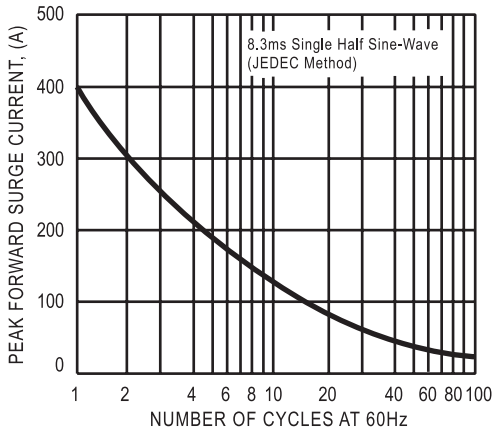


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

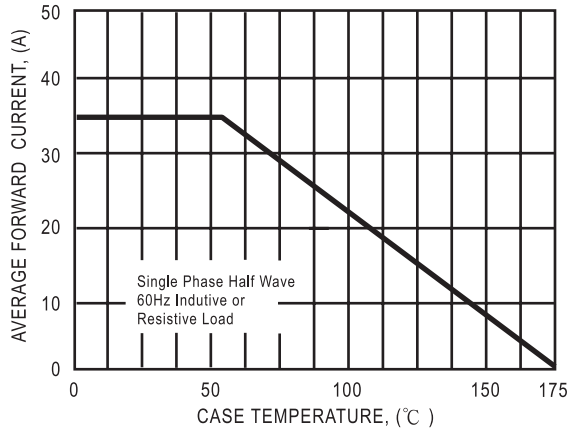


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

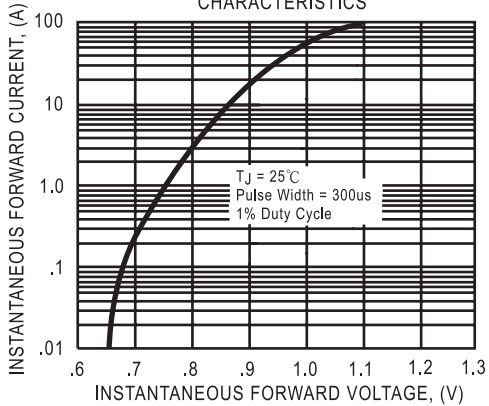


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

