



**DC COMPONENTS CO., LTD.**  
RECTIFIER SPECIALISTS

**MMB3505  
THRU  
MMB3510**

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

**FEATURES**

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

**MECHANICAL DATA**

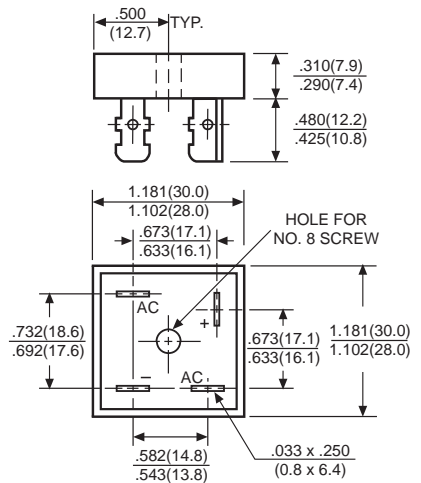
- \* Case: Metal case, electrically isolated
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 25 grams approx.

**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%.



**MMB-25**



Dimensions in inches and (millimeters)

	SYMBOL	MMB3505	MMB351	MMB352	MMB354	MMB356	MMB358	MMB3510	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	IR	10							μAmps
DC Blocking Voltage per element									
		500							μAmps
	@TA = 100°C								
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	664							A <sup>2</sup> 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 (MMB3505 THRU MMB3510)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

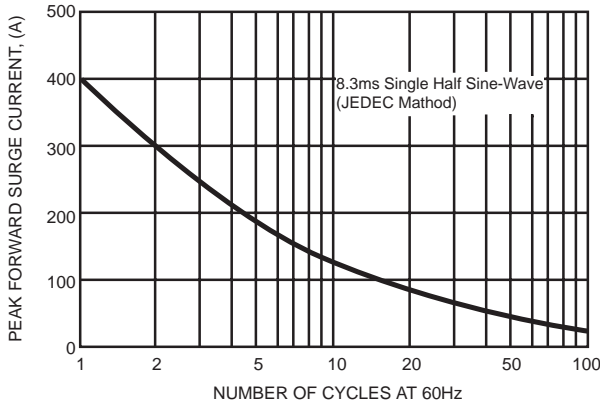


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

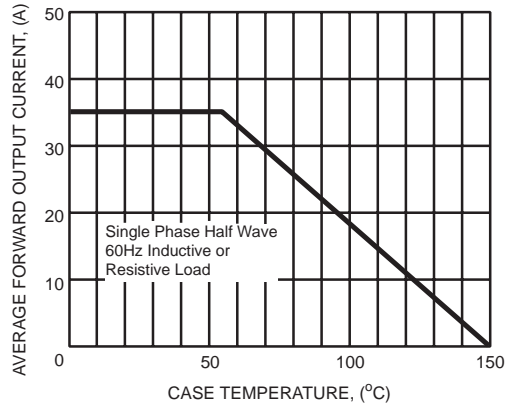


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

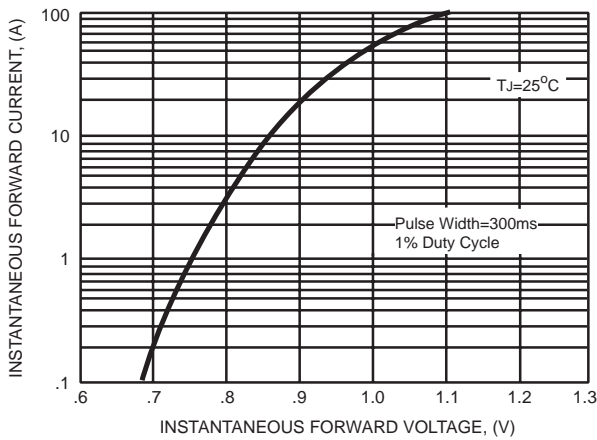
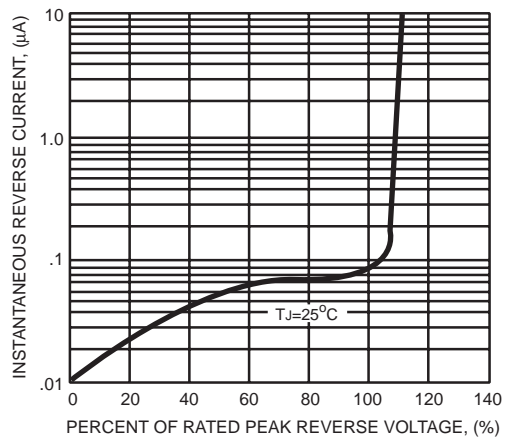


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS





**DC COMPONENTS CO., LTD.**  
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**MMB3505W  
THRU  
MMB3510W**

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VOLTAGE RANGE - 50 to 1000 Volts  
CURRENT - 35 Amperes

**FEATURES**

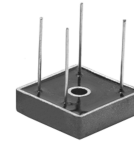
- \* Metal case for Maximum Heat Dissipation
- \* Diffused Junction
- \* High current capability
- \* Surge overload ratings - 400 Amperes
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- \* High Reliability

**MECHANICAL DATA**

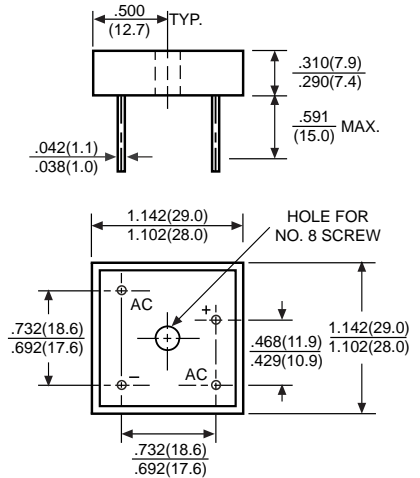
- \* Case: Metal case, electrically isolated
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 25 grams approx.

**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%.



**MMB-25W**



Dimensions in inches and (millimeters)

	SYMBOL	MMB 3505W	MMB 351W	MMB 352W	MMB 354W	MMB 356W	MMB 358W	MMB 3510W	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Bridge Input Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current at T <sub>c</sub> = 55°C	I <sub>O</sub>	35							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400							Amps
Maximum Forward Voltage Drop per element at 17.5A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated	I <sub>R</sub>	@ T <sub>A</sub> = 25°C							μAmps
DC Blocking Voltage per element		@ T <sub>A</sub> = 100°C							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	664							A <sup>2</sup> Sec
Typical Junction Capacitance (Note1)	C <sub>J</sub>	300							pF
Typical Thermal Resistance (Note 2)	R <sub>θJC</sub>	2.2							°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-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 (MMB3505W THRU MMB3510W)

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

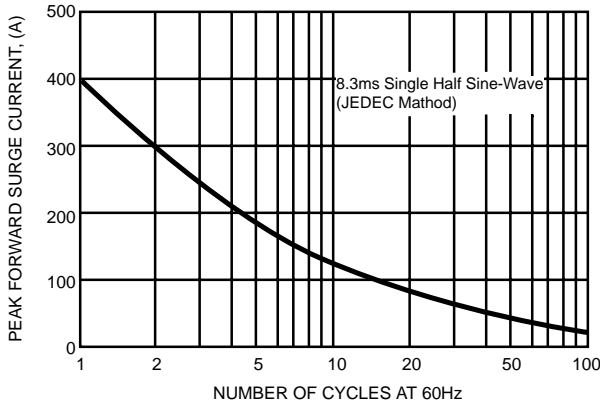


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

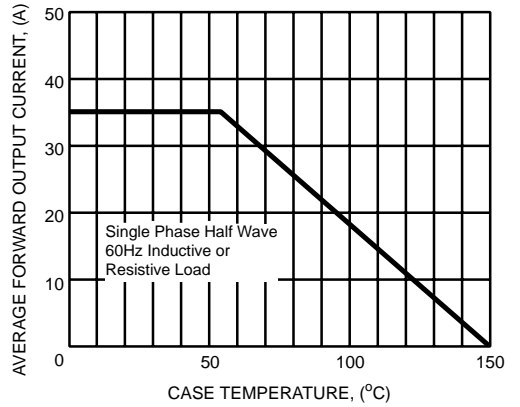


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

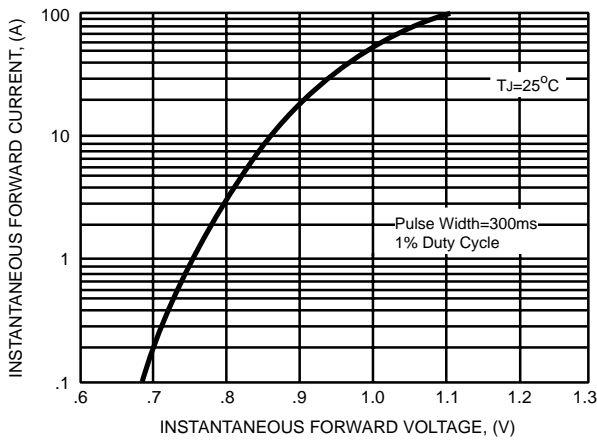


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

