

# 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

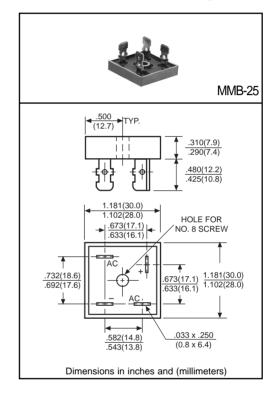
\* Terminals: Plated .25"(6.35mm) Faston lugs, Solderable per

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%.



		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 = 50°C		lo	35						Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave		IFSM	400							Amps
superimposed on rated load (JEDEC Method)										
Maximum Forward Voltage Drop per element at 17.5A DC		VF	1.1						Volts	
Maximum DC Reverse Current at Rated	@Ta = 25°C	IR 10							μAmps	
DC Blocking Voltage per element	@Ta = 100°C	IK IK	500							
I <sup>2</sup> t Rating for Fusing (t<8.3ms)		l <sup>2</sup> t	664						A <sup>2</sup> Sec	
Typical Junction Capacitance (Note1)		Cı	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.

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## **RATING AND CHARACTERISTIC CURVES (MMB3505 THRU MMB3510)**

FIG. 1 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

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FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

(Y)

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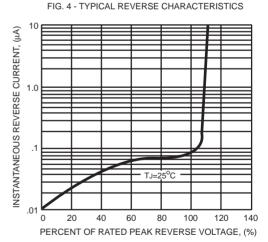
TJ=25°C

TJ=25°C

Pulse Width=300ms
1% Duty Cycle

1. 6 .7 .8 .9 1.0 1.1 1.2 1.3

INSTANTANEOUS FORWARD VOLTAGE, (V)



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