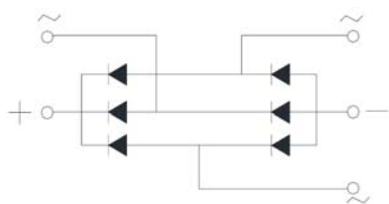


## Three Phase Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Low thermal resistance
- Glass passivated chip junction
- High surge current capability
- Solder dip 275 °C max. 7 s, per JESD 22-B106

### Typical Applications

General purpose use in AC/DC bridge full wave rectification for Server、Frequency converter、Industrial power supply.

### Mechanical Data

- **Package:** MT-M  
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Gold plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

### ■Maximum Ratings (T<sub>a</sub>=25°C Unless otherwise specified )

PARAMETER		SYMBOL	UNIT	MT5006M	MT5008M	MT5010M	MT5012M	MT5014M	MT5016M
Device marking code				MT5006M	MT5008M	MT5010M	MT5012M	MT5014M	MT5016M
Maximum Repetitive Peak Reverse Voltage		VRRM	V	600	800	1000	1200	1400	1600
Maximum RMS Voltage		VRMS	V	420	560	700	840	980	1120
Maximum DC blocking Voltage		VDC	V	600	800	1000	1200	1400	1600
Average rectified output current @60Hz sine wave, R-load	With heatsink T <sub>c</sub> =90°C	IO	A	50.0					
Forward Surge Current (Non-repetitive) @8.3ms Half-sine wave, 1 cycle, T <sub>j</sub> =25°C	IFSM	A	500						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C			1000						
Current squared time @1ms≤t≤8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	1037.5						
Storage temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction temperature	T <sub>j</sub>	°C	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute	V <sub>dis</sub>	KV	2.5						
Mounting torque	Tor	kg·cm	10						

## MT5006M THRU MT5016M

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MT5006M	MT5008M	MT5010M	MT5012M	MT5014M	MT5016M
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =25A	1.15					
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>R</sub>	μA	T <sub>j</sub> =25°C	5					
			T <sub>j</sub> =125°C	500					
Typical junction capacitance	C <sub>j</sub>	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	185					

### ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MT5006M	MT5008M	MT5010M	MT5012M	MT5014M	MT5016M
Typical Thermal Resistance Between junction and case, With heatsink	R <sub>θJ-C</sub>	°C/W	0.9					

Note: Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

### ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MT5006M ~ MT5016M	A1	Approximate 16	50	50	500	Paper Box

### ■ Characteristics (Typical)

FIG1:I<sub>o</sub>-T<sub>c</sub> Curve

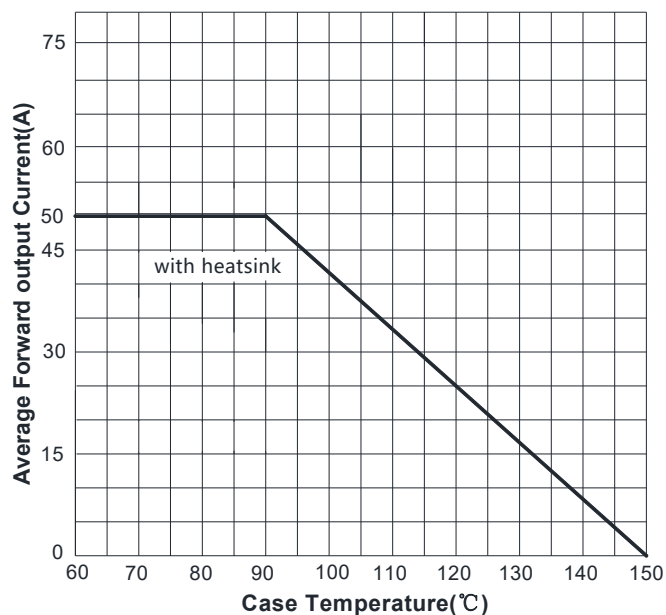
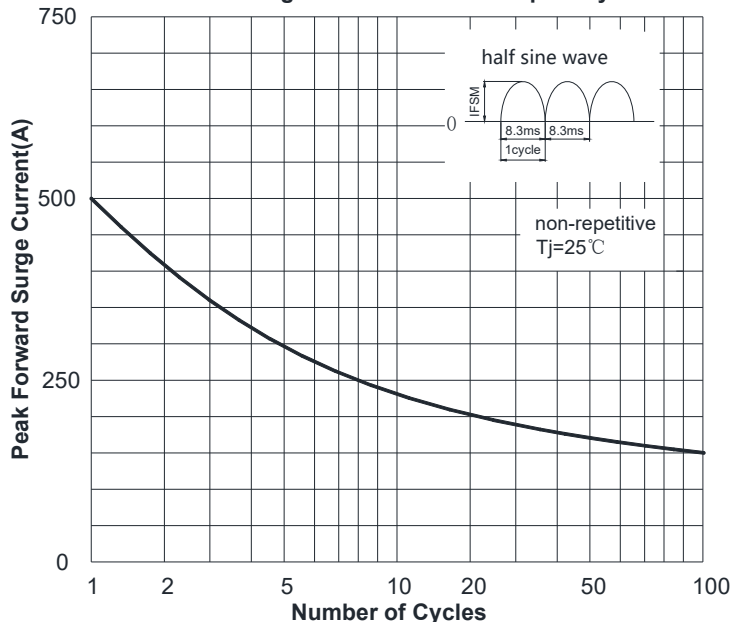


FIG2: Surge Forward Current Capability



MT5006M THRU MT5016M

FIG3: Typical Forward Voltage

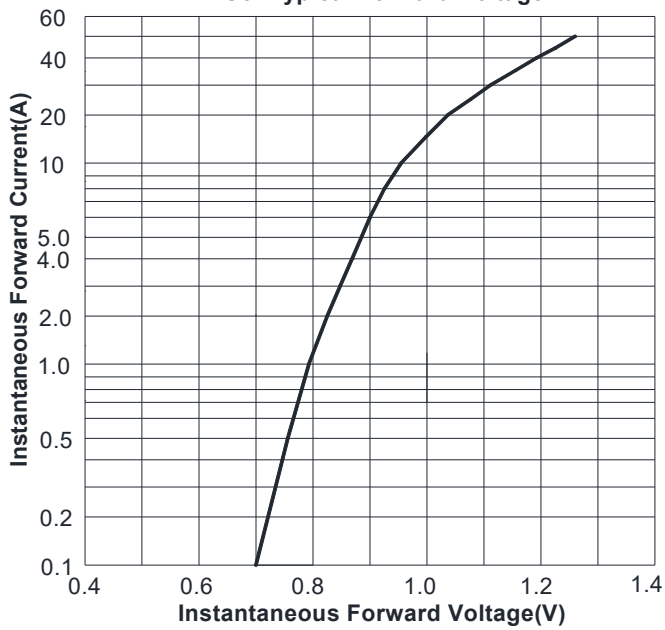
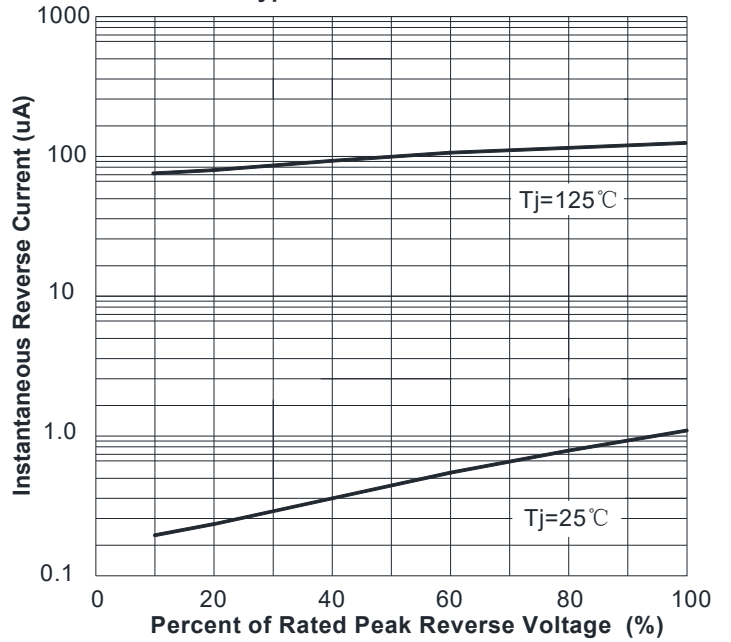
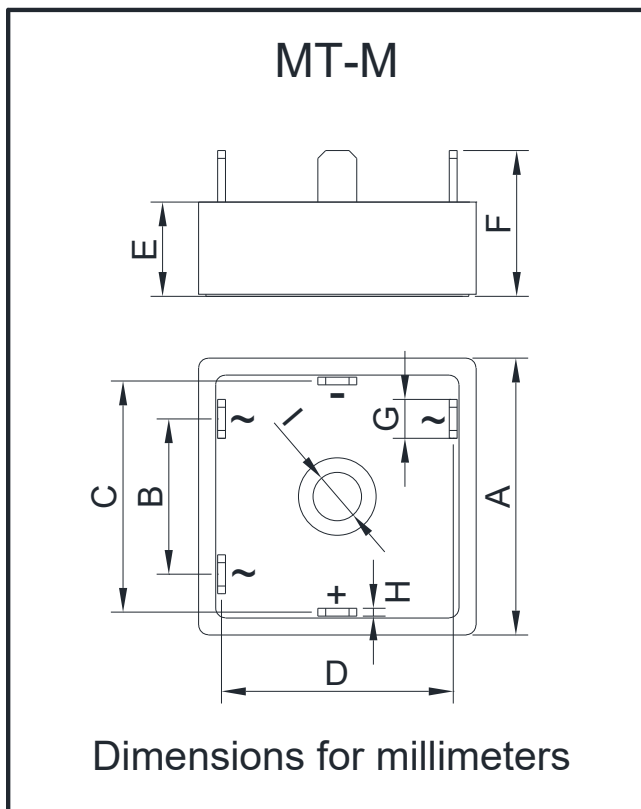


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



MT-M		
Dim	Min	Max
A	28.2	28.8
B	15.5	16.5
C	23.3	24.3
D	23.3	24.3
E	9.0	10.0
F	14.5	15.5
G	3.8	4.2
H	0.75	0.85
I	4.5	5.5

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