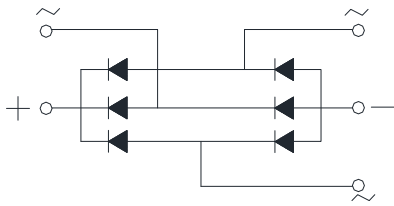
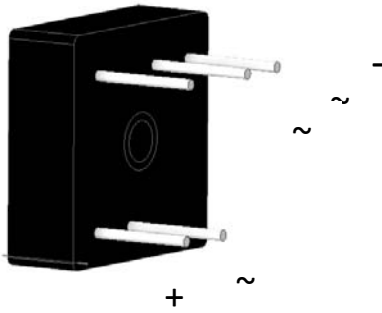




# MT5006W THRU MT5016W

## Three Phase Bridge Rectifiers



### Features

- UL recognition, file #E230084
- Glass passivated chip junction
- Low reverse leakage current
- 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-W  
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Tin 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	MT5006W	MT5008W	MT5010W	MT5012W	MT5014W	MT5016W
Device marking code			MT5006W	MT5008W	MT5010W	MT5012W	MT5014W	MT5016W
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	IO	A	50					
Forward Surge Current (Non-repetitive) @8.3ms Half-sine wave, 1 cycle, T <sub>j</sub> =25°C			500					
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C	IFSM	A	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 @Recommend torque: 5kg·cm	Tor	kg·cm	8					



# MT5006W THRU MT5016W

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MT5006W	MT5008W	MT5010W	MT5012W	MT5014W	MT5016W
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	IFM=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)

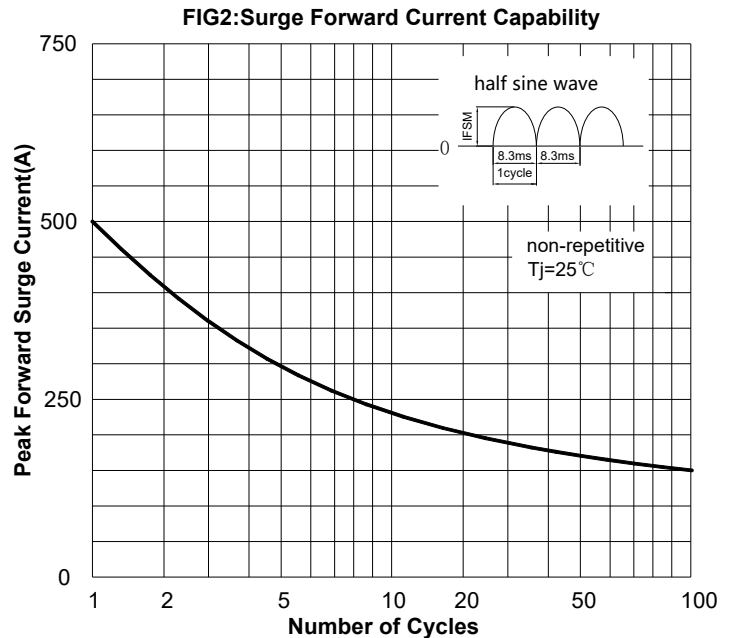
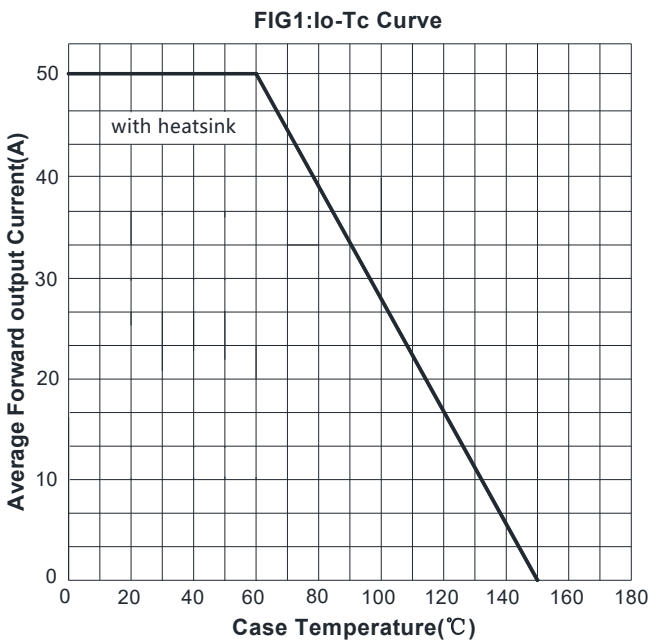
PARAMETER		SYMBOL	UNIT	MT5006W	MT5008W	MT5010W	MT5012W	MT5014W	MT5016W
Thermal Resistance	Between junction and ambient, Without heatsink	R <sub>θJ-A</sub>	°C/W	24.0					
	Between junction and case, With heatsink	R <sub>θJ-C</sub>		0.85					

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

## ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
MT3506W – MT3516W	A1	Approximate 17.7	50	50	500	Paper Box

## ■ Characteristics (Typical)





# MT5006W THRU MT5016W

FIG3: Typical Forward Voltage

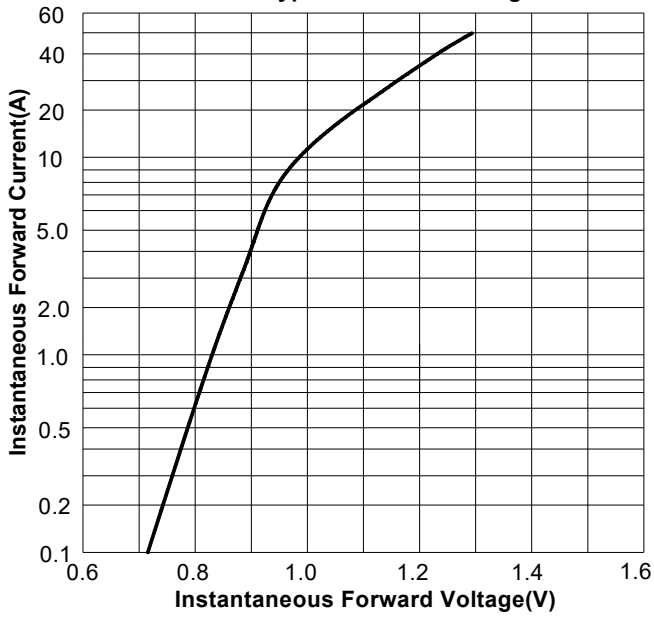
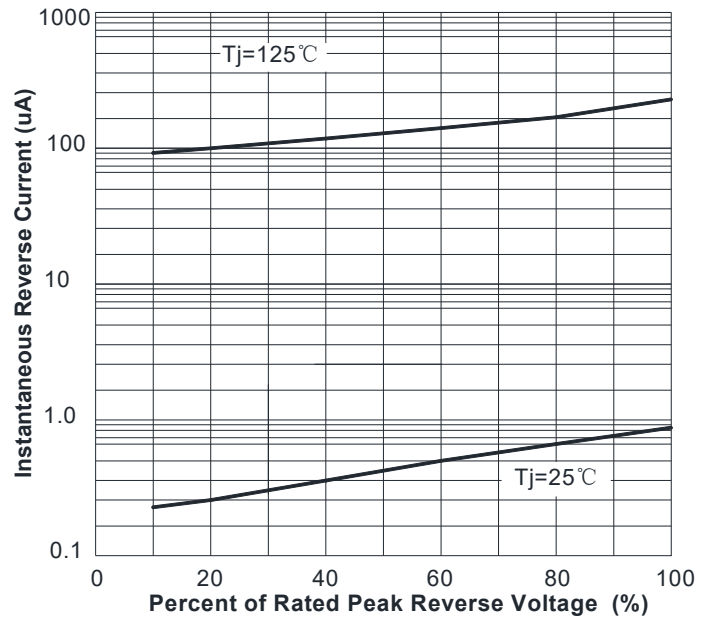
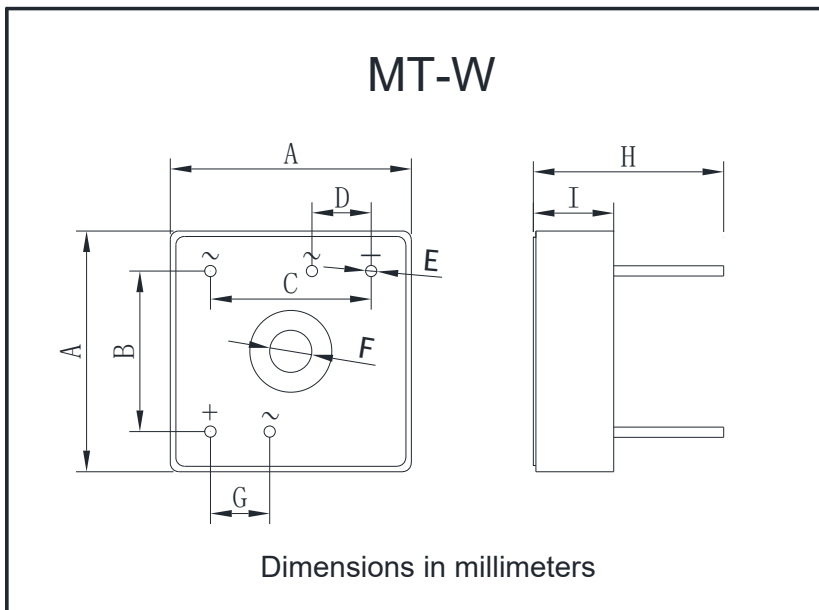


FIG4: Typical Reverse Characteristics



## ■ Outline Dimensions



MT-W		
Dim	Min	Max
A	28.0	29.0
B	18.5	19.5
C	18.5	19.5
D	6.5	7.5
E	1.1	1.5
F	4.5	5.5
G	6.5	7.5
H	22.0	24.0
I	9.2	10.2



## MT5006W THRU MT5016W

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