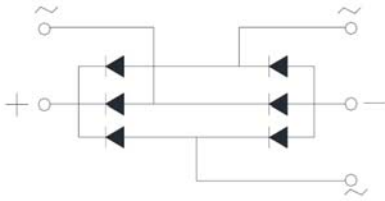




# MT3504A THRU MT3516A

## 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  
Molding compound meets UL 94 V-0 flammability rating
- **Terminals:** Au 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	MT3504A	MT3506A	MT3508A	MT3510A	MT3512A	MT3514A	MT3516A
Device marking code			MT3504A	MT3506A	MT3508A	MT3510A	MT3512A	MT3514A	MT3516A
Maximum Repetitive Peak Reverse Voltage	VRRM	V	400	600	800	1000	1200	1400	1600
Maximum RMS Voltage	VRMS	V	280	420	560	700	840	980	1120
Maximum DC blocking Voltage	VDC	V	400	600	800	1000	1200	1400	1600
Average rectified output current @60Hz sine wave, R-load	With heatsink T <sub>c</sub> =100°C	IO	A	35					
Forward Surge Current (Non-repetitive) @8.3ms,Half-sine wave,1 cycle, T <sub>j</sub> =25°C				IFSM	A	400			
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T <sub>j</sub> =25°C	800								
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	664						
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						



# MT3504A THRU MT3516A

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MT3504A	MT3506A	MT3508A	MT3510A	MT3512A	MT3514A	MT3516A
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =17.5A	1.1						
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	200				150		

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

PARAMETER		SYMBOL	UNIT	MT3504A	MT3506A	MT3508A	MT3510A	MT3512A	MT3514A	MT3516A
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
MT3504A ~ MT3516A	A1	Approximate 17.5	50	50	500	Paper Box

## ■ Characteristics (Typical)

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

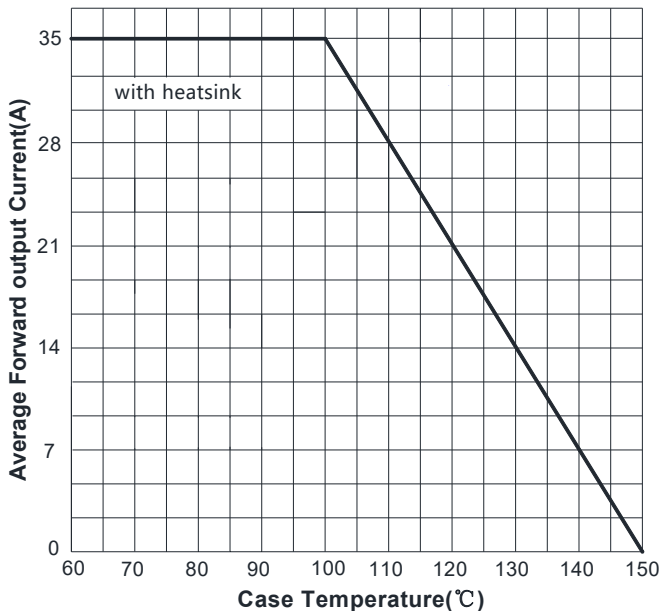
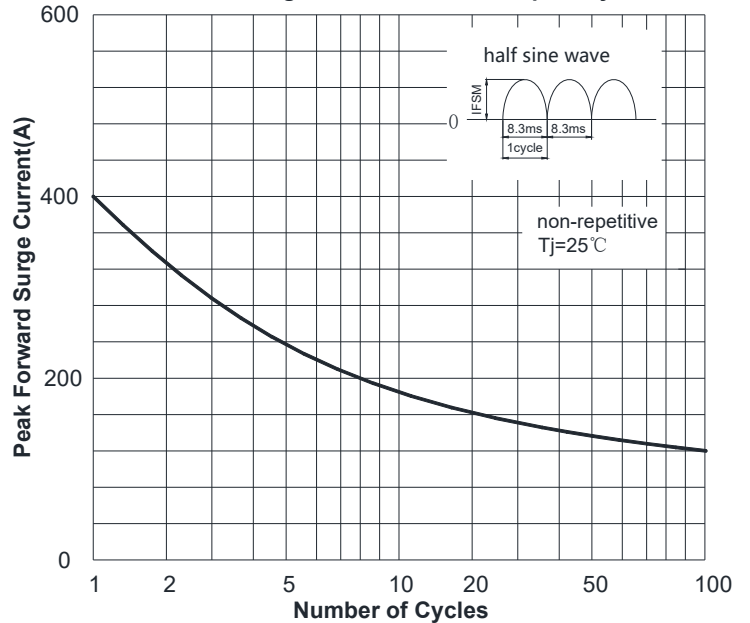


FIG2: Surge Forward Current Capability





# MT3504A THRU MT3516A

FIG3: Typical Forward Voltage

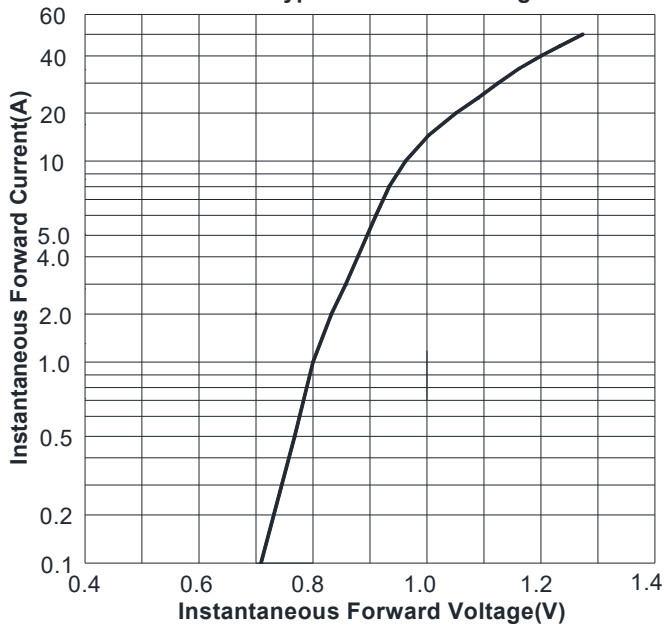
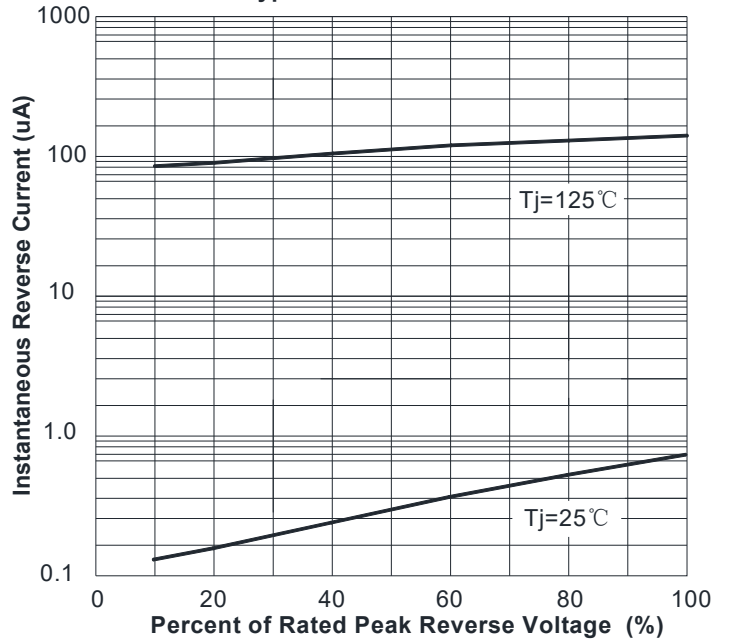
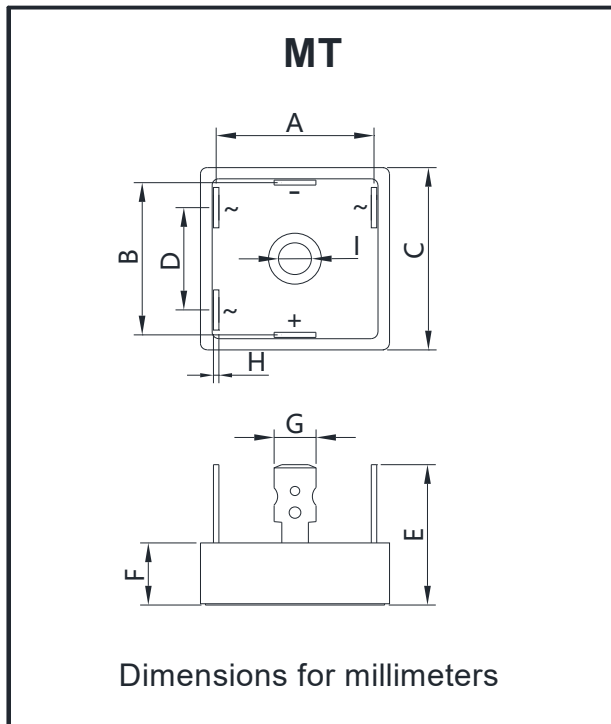


FIG4: Typical Reverse Characteristics



## ■ Outline Dimensions



MT		
Dim	Min	Max
A	23.3	24.3
B	23.3	24.3
C	28.2	28.8
D	15.5	16.5
E	/	25
F	9.0	10.0
G	6.2	6.4
H	0.75	0.85
I	4.5	5.5



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