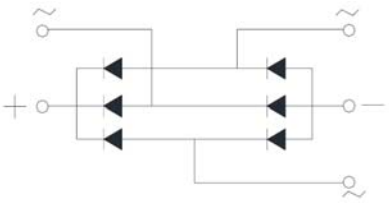
Three Phase Bridge Rectifiers





Features

- 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_a=25℃ 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		V_{RRM}	V	400	600	800	1000	1200	1400	1600
Maximum RMS Voltage		V_{RMS}	V	280	420	560	700	840	980	1120
Maximum DC blocking Voltage		V_{DC}	V	400	600	800	1000	1200	1400	1600
Average rectified output current @60Hz sine wave, R-load	With heatsink Tc =100℃	I_O	A	35						
Forward Surge Current (Non-repetitive) @8.3ms,Half-sine wave,1 cycle, Tj=25℃		I_{FSM}	A	400						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25℃				800						
Current squared time @1ms≤t≤8.3ms Tj=25℃, Rating of per diode		I^2t	A^2s	664						
Storage temperature		T_{stg}	℃	-55 ~ +150						
Junction temperature		T_j	℃	-55 ~ +150						
Dielectric strength @ Terminals to case, AC 1 minute		V_{dis}	KV	2.5						
Mounting torque @Recommend torque：5kg·cm		Tor	kg· cm	8						

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MT3504A	MT3506A	MT3508A	MT3510A	MT3512A	MT3514A	MT3516A
Maximum instantaneous forward voltage drop per diode	VF	V	I_{FM}=17.5A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	T_j=25℃	5						
			T_j=125℃	500						
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	200				150		

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		SYMBOL	UNIT	MT3504A	MT3506A	MT3508A	MT3510A	MT3512A	MT3514A	MT3516A
Typical Thermal Resistance	Between junction and case, With heatsink	RθJ-C	℃/W	0.9						

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

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM 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:Io-Tc Curve

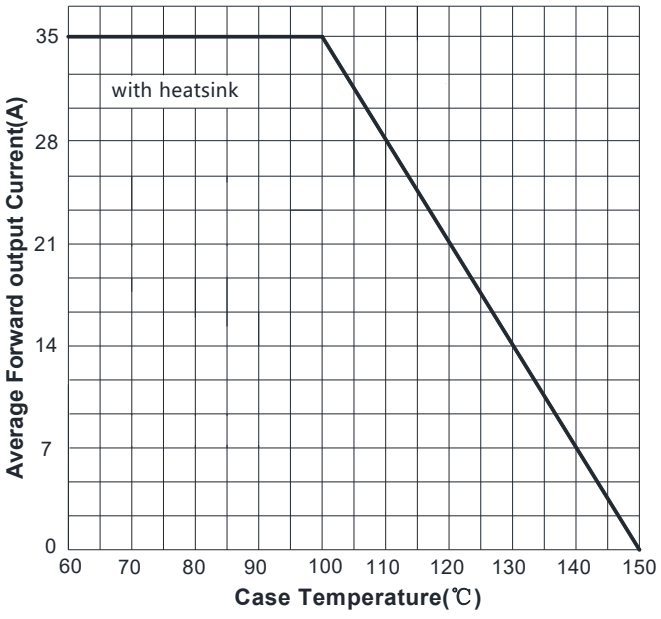


FIG2:Surge Forward Current Capability

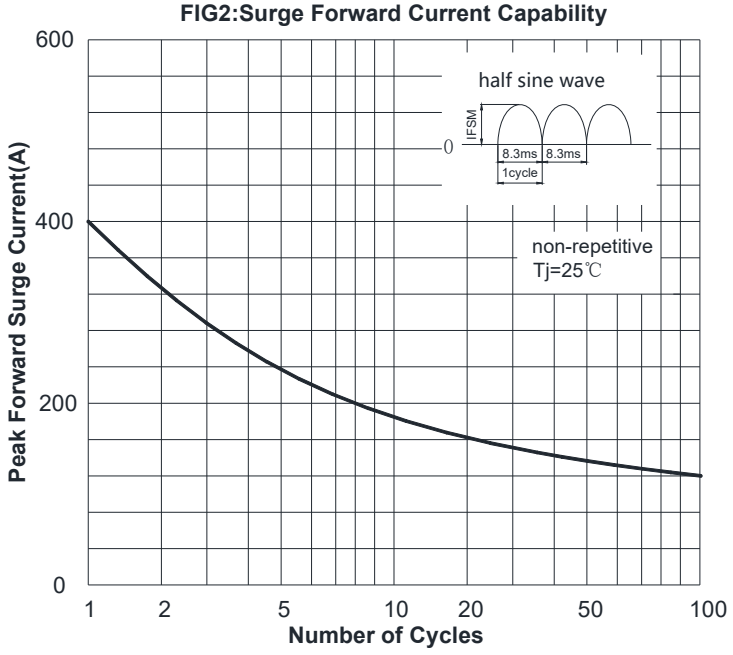


FIG3: Typical Forward Voltage

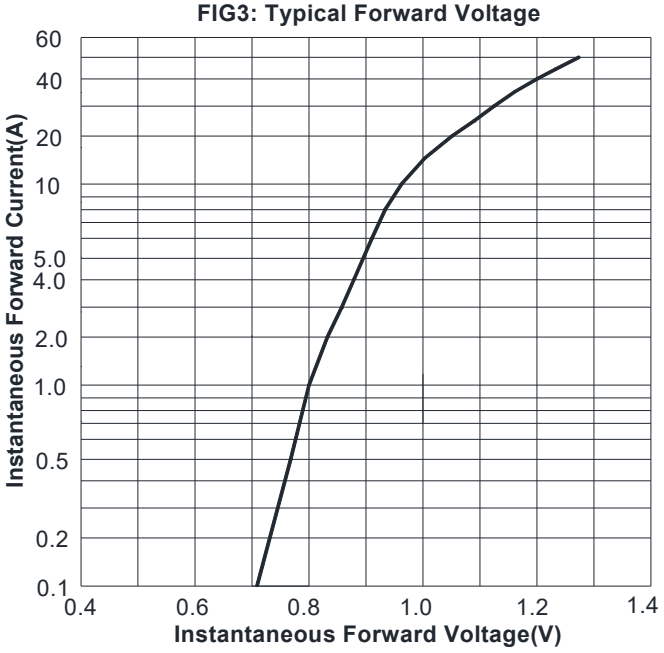
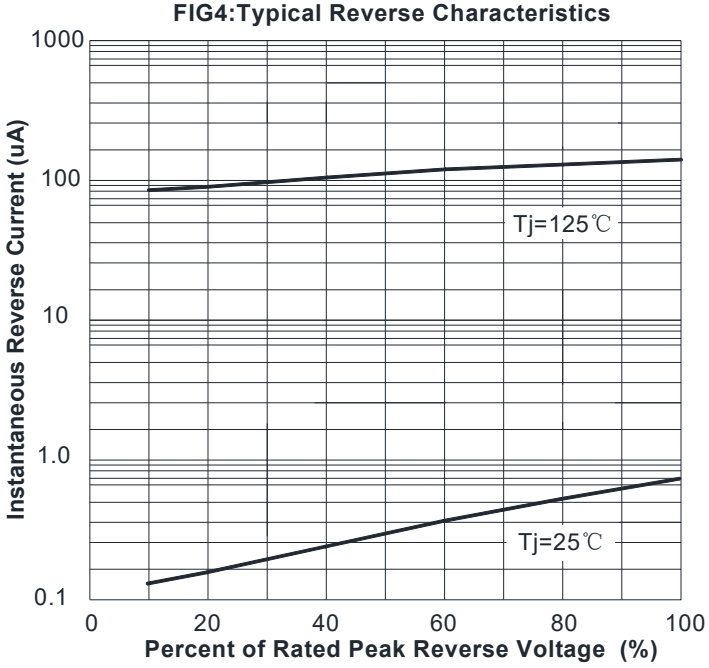
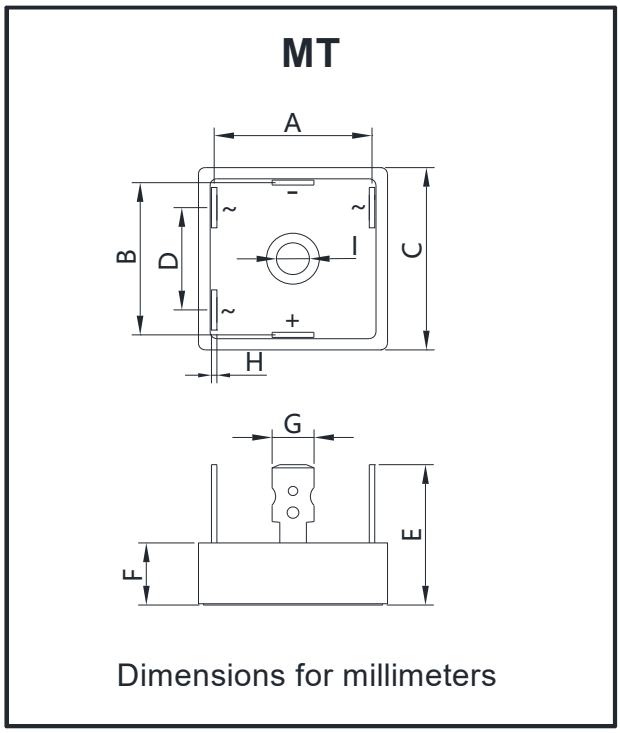


FIG4:Typical Reverse Characteristics



■ 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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