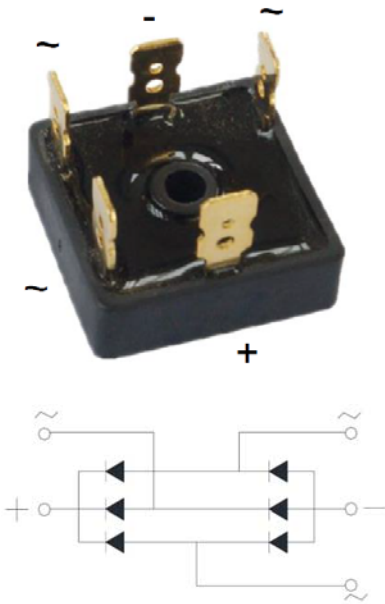


Three Phase Bridge Rectifiers



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-B
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Au plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MT5004B	MT5006B	MT5008B	MT5010B	MT5012B	MT5014B	MT5016B
Device marking code				MT5004B	MT5006B	MT5008B	MT5010B	MT5012B	MT5014B	MT5016B
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 _c =95°C	I _O	A	50						
Forward Surge Current (Non-repetitive) @8.3ms Half-sine wave, 1 cycle, T _j =25°C		I _{FSM}	A	500						
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode		I ² t	A ² s	1038						
Storage temperature		T _{stg}	°C	-55 ~ +150						
Junction temperature		T _j	°C	-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						



MT5004B THRU MT5016B

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MT5004B	MT5006B	MT5008B	MT5010B	MT5012B	MT5014B	MT5016B
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =25A	1.15						
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5						
			T _j =125°C	500						
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	240				185		

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	MT5004B	MT5006B	MT5008B	MT5010B	MT5012B	MT5014B	MT5016B
Typical Thermal Resistance	Between junction and case, With heatsink	R _{θJ-C}	°C/W	0.6						

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
MT5004B ~ MT5016B	A1	Approximate 26	50	50	500	Paper Box

■ Characteristics (Typical)

FIG1:I_o-T_c Curve

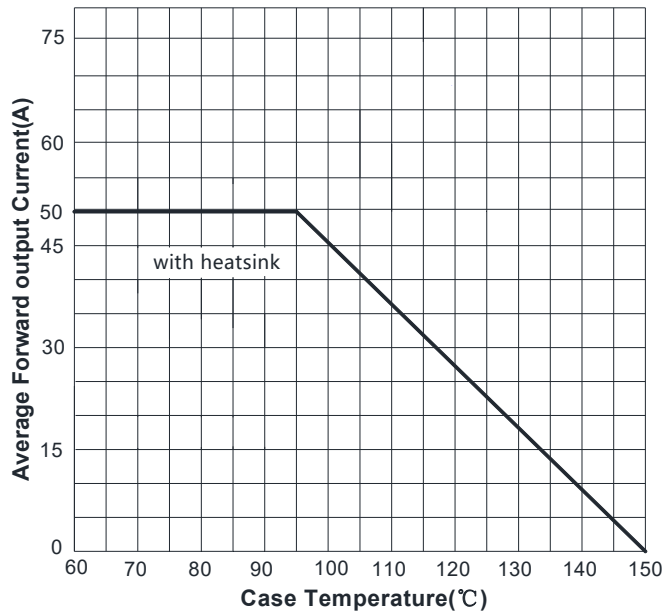
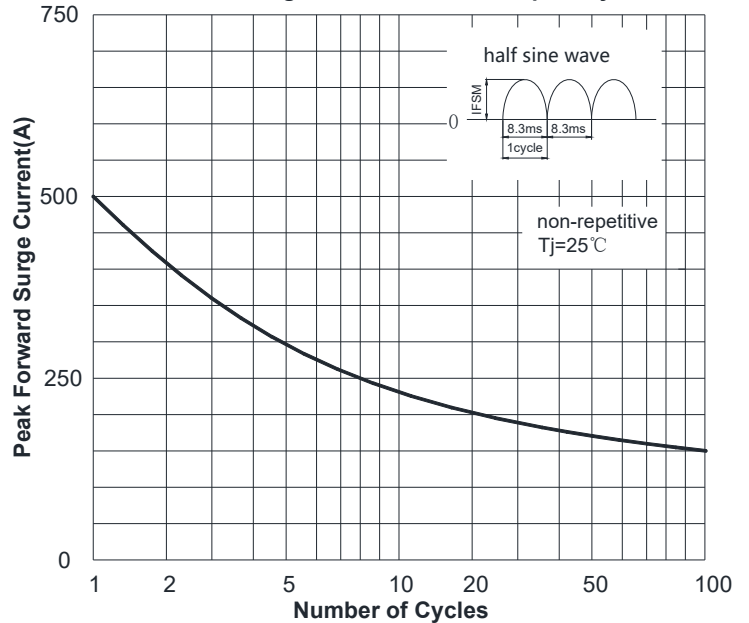


FIG2: Surge Forward Current Capability





MT5004B THRU MT5016B

FIG3: Typical Forward Voltage

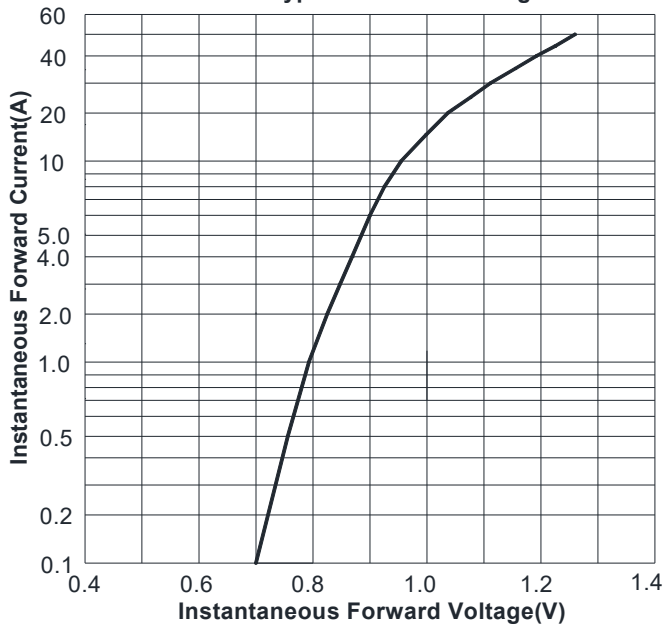
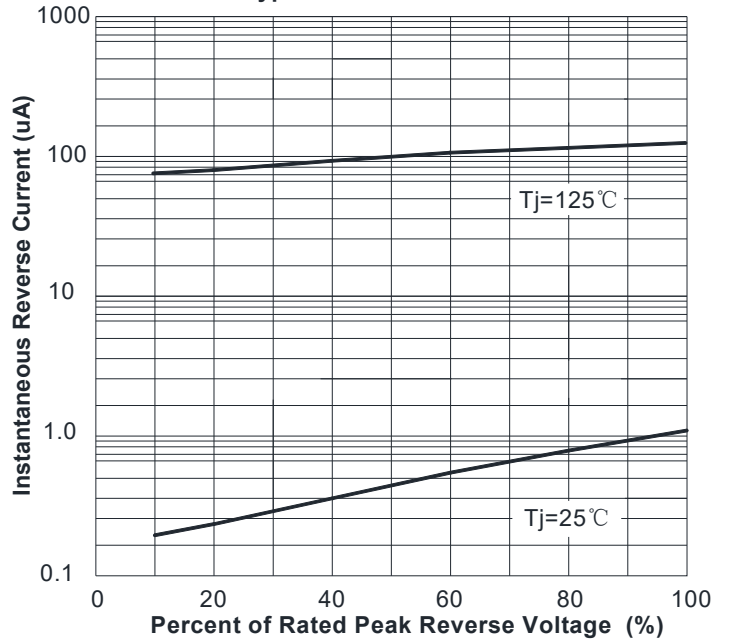
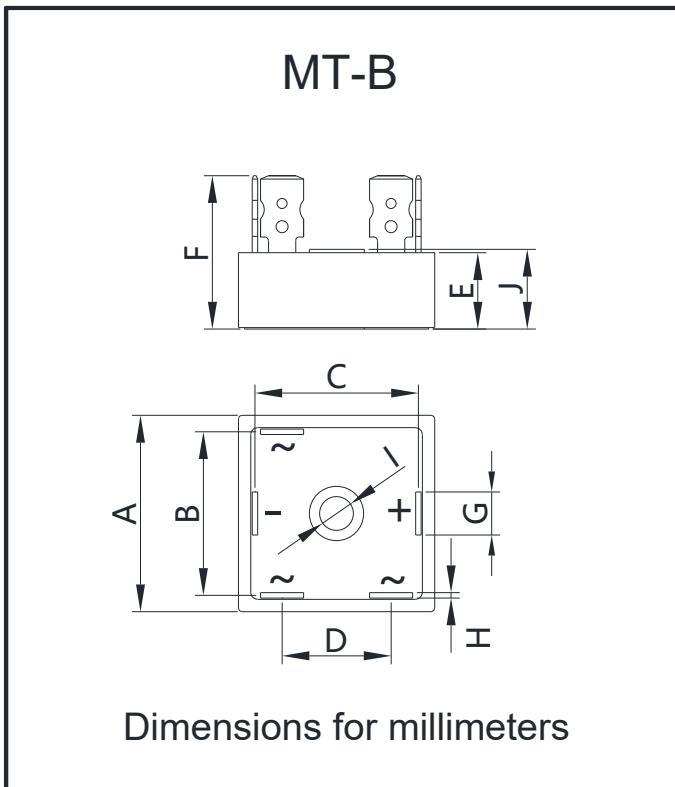


FIG4: Typical Reverse Characteristics



■ Outline Dimensions



MT-B		
Dim	Min	Max
A	28.0	29.0
B	23.5	24.5
C	23.5	24.5
D	15.5	16.5
E	10.9	11.5
F	22.0	23.0
G	6.2	6.4
H	0.75	0.85
I	4.5	5.5



MT5004B THRU MT5016B

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