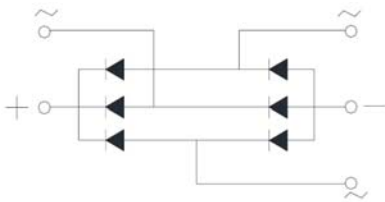




MT5018A

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_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MT5018A
Device marking code			MT5018A
Maximum Repetitive Peak Reverse Voltage	VRRM	V	1800
Maximum RMS Voltage	VRMS	V	1260
Maximum DC blocking Voltage	VDC	V	1800
Average rectified output current @60Hz sine wave, R-load	IO	A	50
With heatsink T _c =90°C			
Forward Surge Current (Non-repetitive) @8.3ms,Half-sine wave,1 cycle, T _j =25°C	IFSM	A	500
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C			1000
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



MT5018A

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MT5018A
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	185

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

PARAMETER		SYMBOL	UNIT	MT5018A
Typical Thermal Resistance	Between junction and case, With heatsink	R _{θJ-C}	°C/W	0.8

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
MT5018A	A1	Approximate 17.5	50	50	500	Paper Box

■ Characteristics (Typical)

FIG1:I_o-T_c Curve

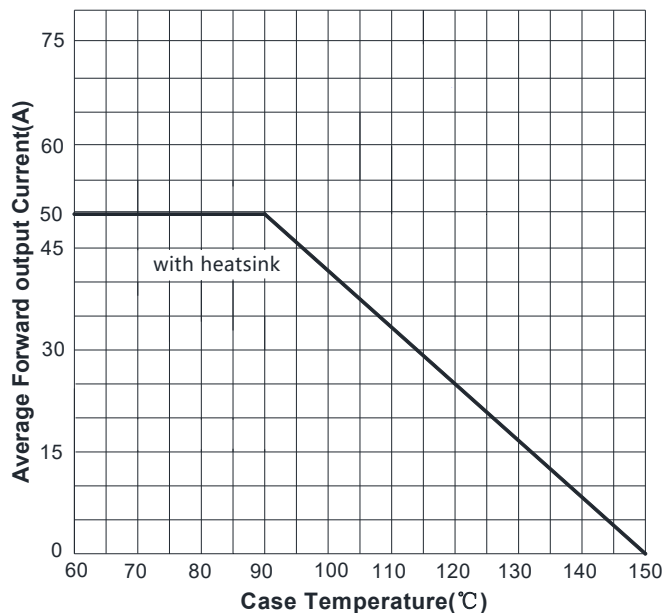


FIG2: Surge Forward Current Capability

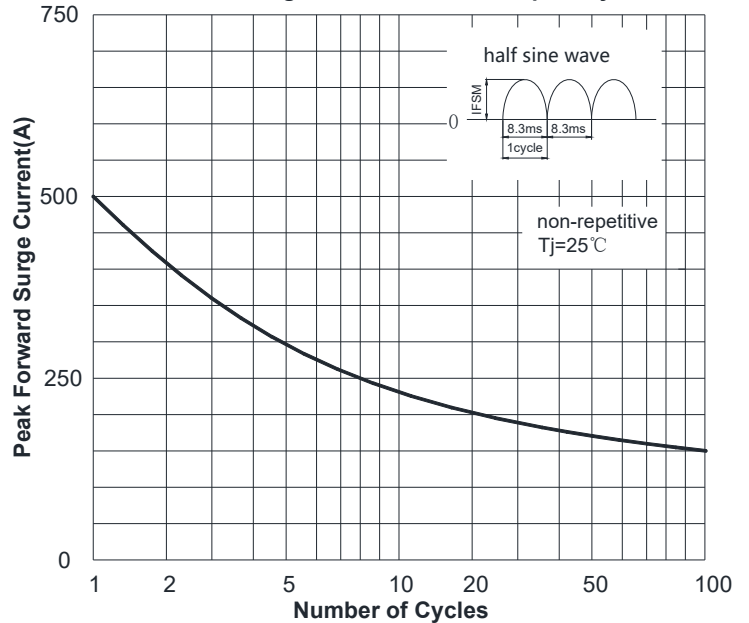


FIG3: Typical Forward Voltage

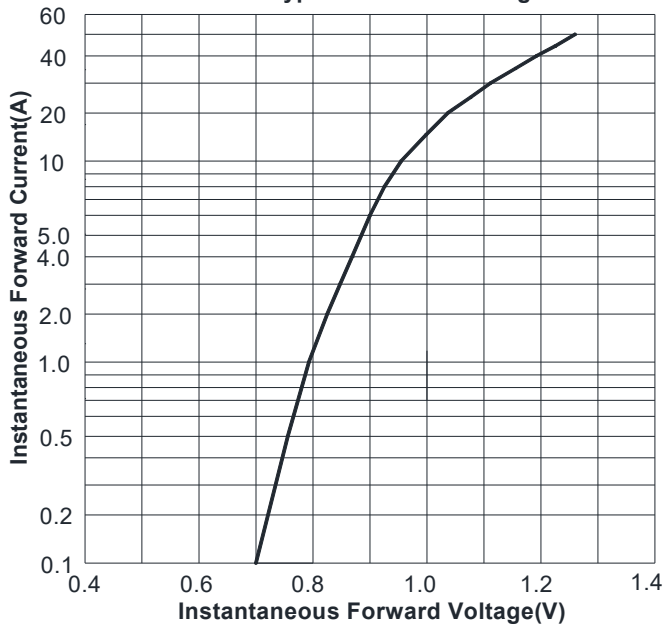
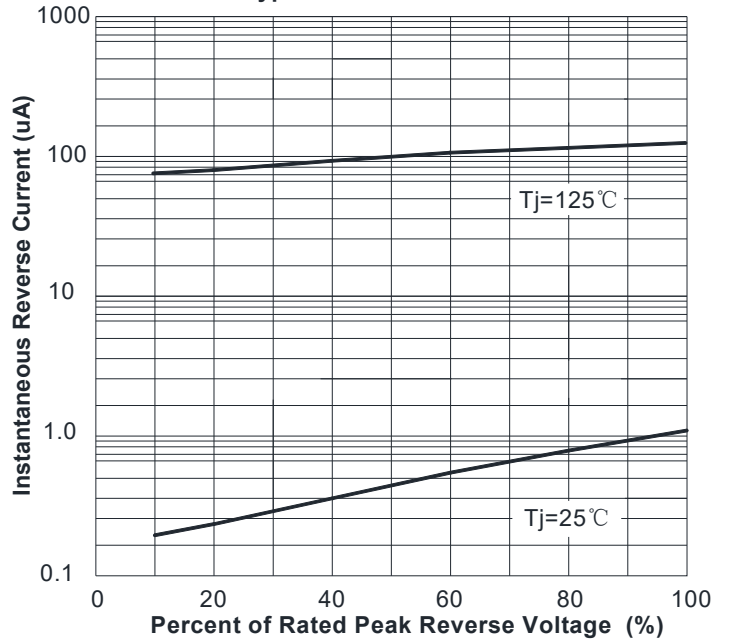
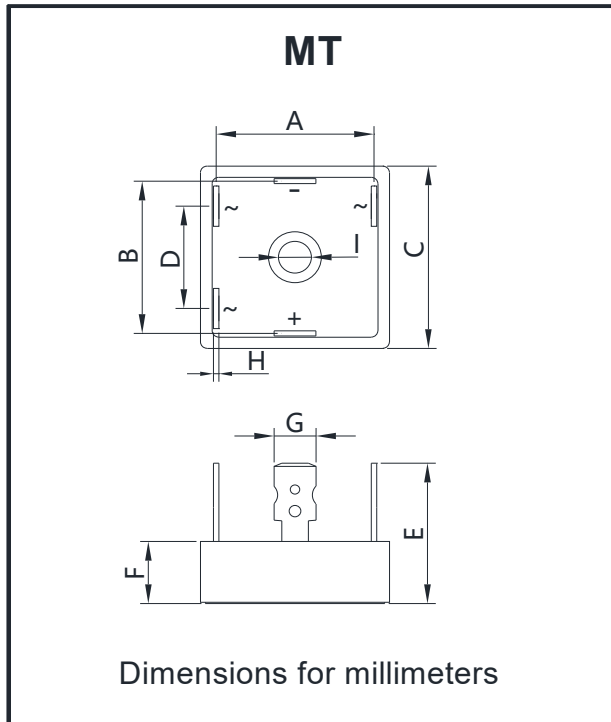


FIG4: Typical Reverse Characteristics



■ **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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