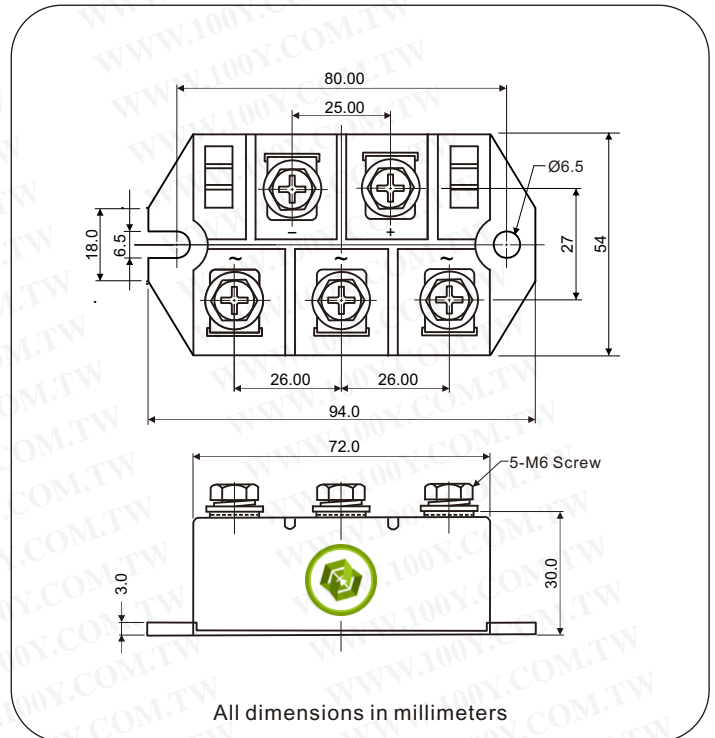




**Three-Phase Bridge Rectifier, 200A**

**MTP20008D Thru MTP20018D**  
**( MTP200-08 Thru MTP200-18 )**



**FEATURES**

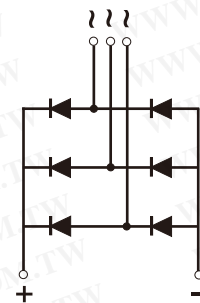
- UL recognition file number E320098 
- Glass passivated chip
- High surge current capability
- Low thermal resistance
- Compliant to RoHS 
- Isolation voltage up to 2500V

**TYPICAL APPLICATIONS**

General purpose use in AC/DC bridge full wave rectification for big power supply, field supply for DC motor, industrial automation applications.

**ADVANTAGE**

- International standard package  
Epoxy meets UL 94 V-O flammability rating
- Small volume, light weight
- Small thermal resistance
- **Weight:** 300g (10.6 ozs)



PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	200A
$V_{RRM}$	800V to 1800V
$I_{FSM}$	2200A
$I_R$	20 $\mu$ A
$V_F$	1.35V
$T_J \text{ max.}$	150°C

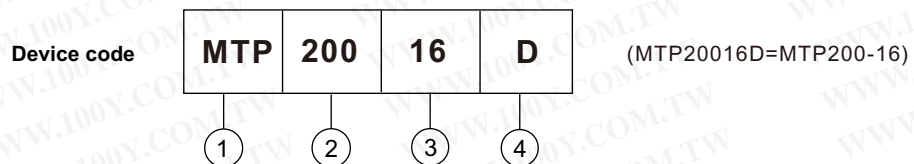
MAJOR RATINGS AND CHARACTERISTICS (T <sub>A</sub> = 25°C unless otherwise noted)							
PARAMETER	SYMBOL	MTP200..D					UNIT
		08	10	12	16	18	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	800	1000	1200	1600	1800	V
Peak reverse non-repetitive voltage	V <sub>RSM</sub>	900	1100	1300	1700	1900	V
Maximum DC blocking voltage	V <sub>DC</sub>	800	1000	1200	1600	1800	V
Maximum average forward rectified output current	I <sub>F(AV)</sub>	200					A
Peak forward surge current single sine-wave superimposed on rated load	I <sub>FSM</sub>	2200					A
Rating (non-repetitive, for t greater than 1 ms and less than 8.3 ms) for fusing	I <sup>2</sup> t	24200					A <sup>2</sup> s
RMS isolation voltage from case to leads	V <sub>ISO</sub>	2500					V
Operating junction storage temperature range	T <sub>J</sub>	-40 to 150					°C
Storage temperature range	T <sub>STG</sub>	-40 to 125					°C

ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 25°C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	MTP200..D					UNIT
			08	10	12	16	18	
Maximum instantaneous forward drop per diode	I <sub>F</sub> = 200A	V <sub>F</sub>	1.35					V
Maximum reverse DC current at rated DC blocking voltage per diod	T <sub>A</sub> = 25°C	I <sub>R</sub>	20					µA
	T <sub>A</sub> = 150°C		10					mA

THERMAL AND MECHANICAC (T <sub>A</sub> = 25°C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	MTP200..D					UNIT
			08	10	12	16	18	
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	R <sub>θJC</sub> <sup>(1)</sup>	0.10					°C/W
Mounting torque to heatsink M6 to terminal M6 ± 10 %	A mounting compound is recommended and the torque should be rechecked after a period of 3 hours to allow for the spread of the compound.		5					Nm
			5					
Approximate weight			300					g

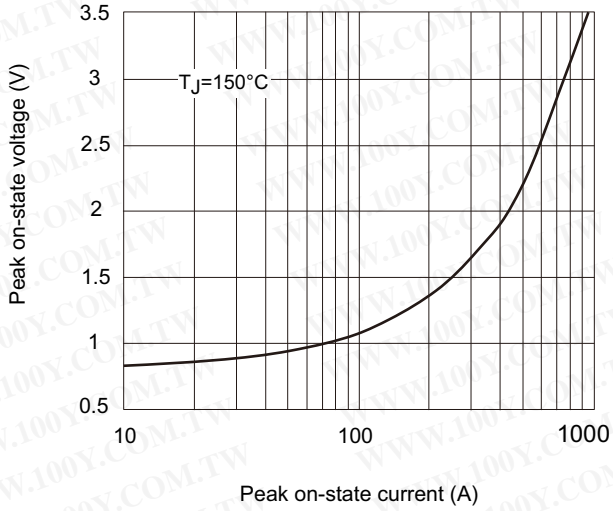
Notes

(1) With heatsink, single side heat dissipation, half sine wave.

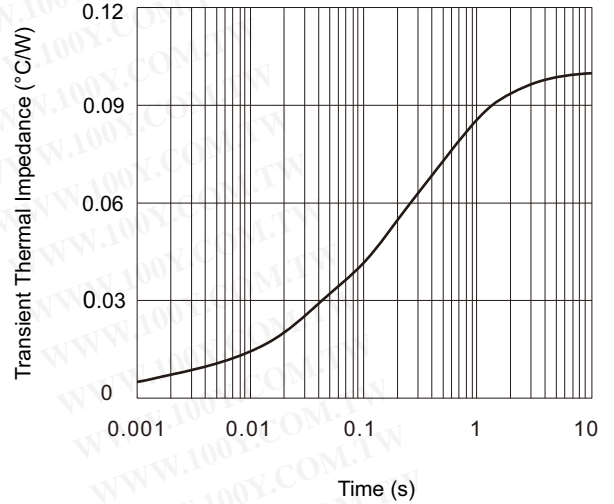


- 1 - Module type: "MTP" for 3Ø Bridge
- 2 - I<sub>F(AV)</sub> rating: "200" for 200A
- 3 - Voltage code: code x 100 = V<sub>RRM</sub>
- 4 - Package Outline: D type package

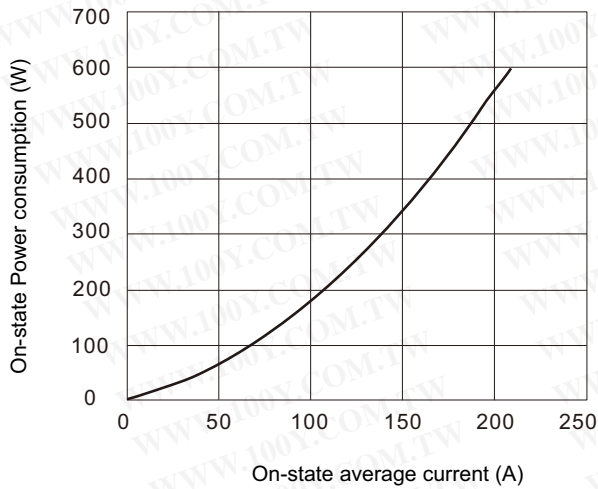
**Fig.1 Forward current vs. Forward voltage**



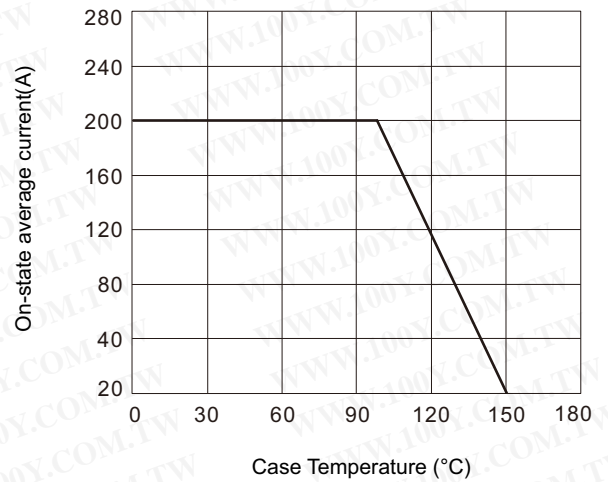
**Fig.2 Thermal Impedance (junction to case)**



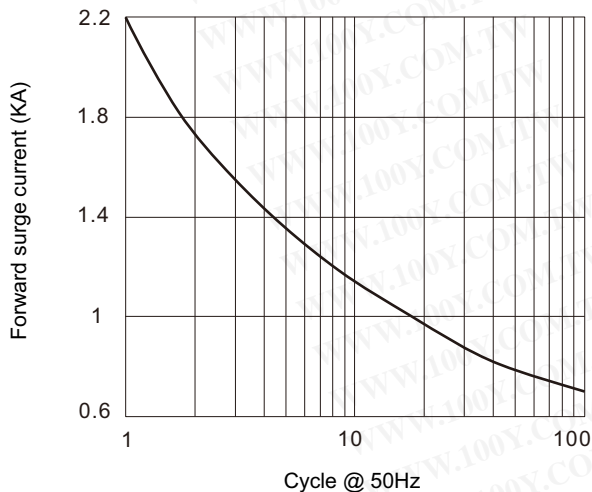
**Fig.3 Power Consumption vs. Average Current**



**Fig.4 Case Temperature vs. O-state Average Current**



**Fig.5 Forward Surge Current vs. Cycle**



**Fig.6 I<sup>2</sup>t characteristic**

