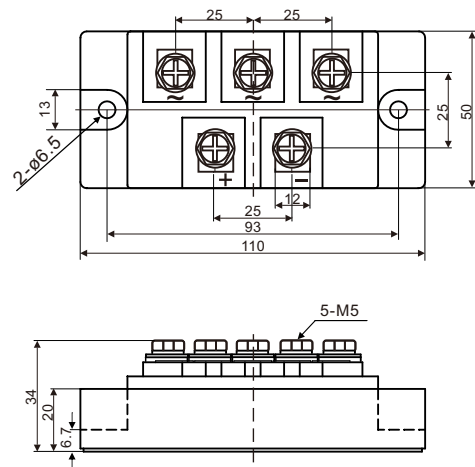


Three-Phase Bridge Rectifier, 150A

MTP15008 Thru MTP15018



All dimensions in millimeters

FEATURES

- UL recognition file number E320098
- Typical IR less than 2.0 μ A
- High surge current capability
- Low thermal resistance
- Compliant to RoHS
- Isolation voltage up to 2500V

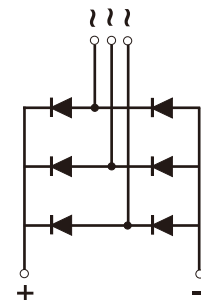


TYPICAL APPLICATIONS

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: 320g (11.3 ozs)



PRIMARY CHARACTERISTICS

$I_{F(AV)}$	150A
V_{RRM}	800V to 1800V
I_{FSM}	1500A
I_R	20 μ A
V_F	1.3V
$T_{Jmax.}$	150°C

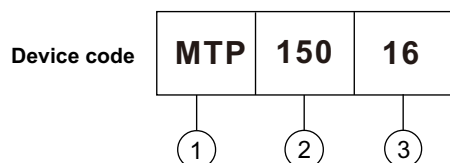
MAJOR RATINGS AND CHARACTERISTICS (T _A = 25°C unless otherwise noted)							
PARAMETER	SYMBOL	MTP150					UNIT
		08	10	12	16	18	
Maximum repetitive peak reverse voltage	V _{RRM}	800	1000	1200	1600	1800	V
Peak reverse non-repetitive voltage	V _{RSM}	900	1100	1300	1700	1900	V
Maximum DC blocking voltage	V _{DC}	800	1000	1200	1600	1800	V
Maximum average forward rectified output current	I _{F(AV)}	150					A
Peak forward surge current single sine-wave superimposed on rated load	I _{FSM}	1500					A
Rating (non-repetitive, for t greater than 1 ms and less than 8.3 ms) for fusing	I ² t	11250					A ² s
RMS isolation voltage from case to leads	V _{ISO}	2500					V
Operating junction storage temperature range	T _J	-40 to 150					°C
Storage temperature range	T _{STG}	-40 to 150					°C

ELECTRICAL CHARACTERISTICS (T _A = 25°C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	MTP150					UNIT
			08	10	12	16	18	
Maximum instantaneous forward drop per diode	I _F = 150A	V _F	1.3					V
Maximum reverse DC current at rated DC blocking voltage per diod	T _A = 25°C	I _R	20					µA
	T _A = 150°C		12					mA

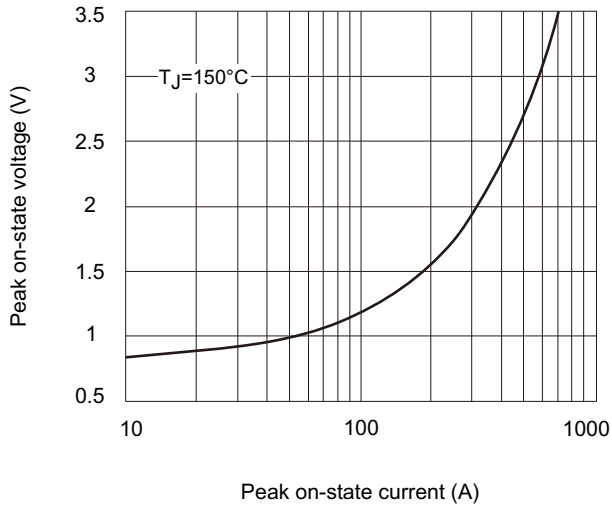
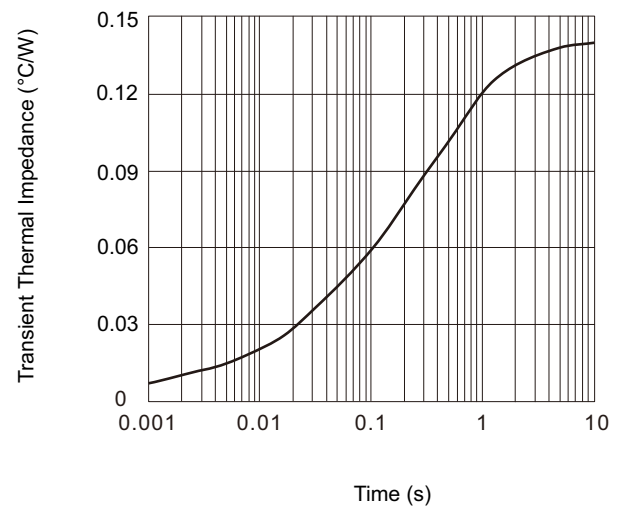
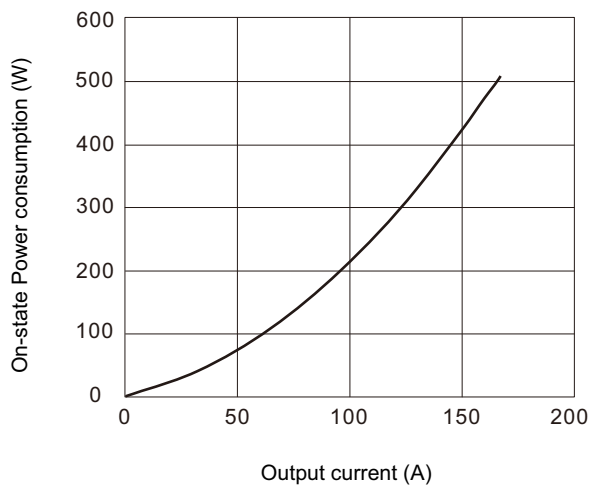
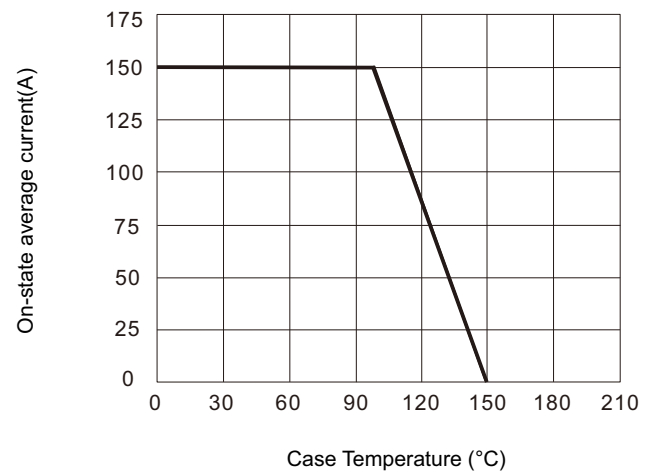
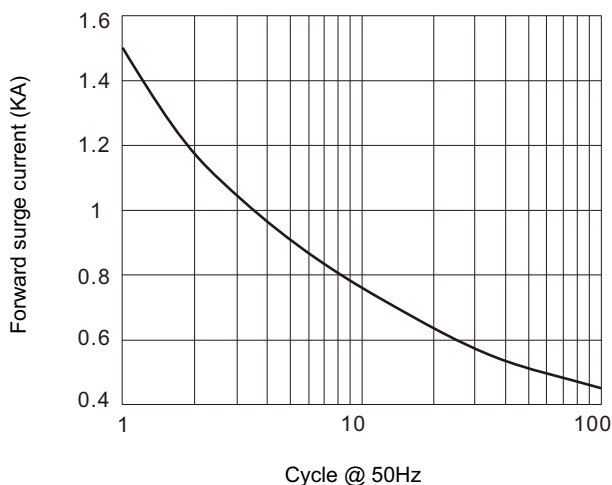
THERMAL AND MECHANICAC (T _A = 25°C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	MTP150					UNIT
			08	10	12	16	18	
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	R _{θJC} ⁽¹⁾	0.14					°C/W
Mounting torque to heatsink M5 to terminal M5 ± 10 %	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.		4					Nm
			4					
Approximate weight			320					g

Notes

- (1) With heatsink, single side heat dissipation, half sine wave.
(2) M5 screw.



- | | | |
|---|---|---|
| 1 | - | Module type: "MTP" for 3Ø Bridge |
| 2 | - | I _{F(AV)} rating: "150" for 150A |
| 3 | - | Voltage code: code x 100 = V _{RRM} |

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 Current

Fig.5 Forward Surge Current vs. Cycle

Fig.6 I^2t characteristic
