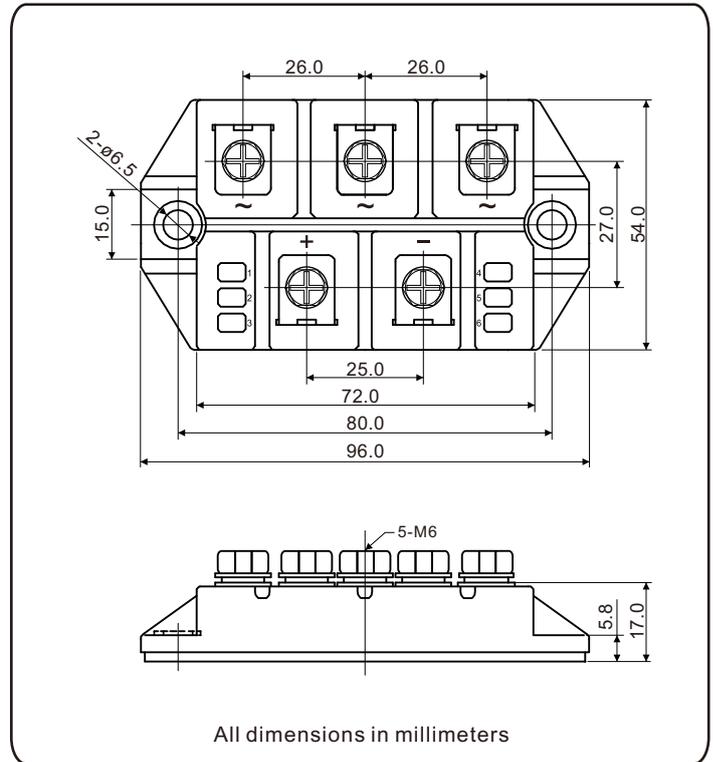


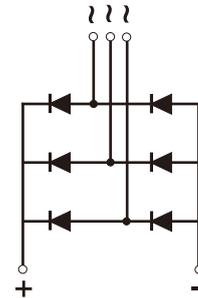
Glass Passivated Three-Phase Bridge Rectifier, 150A

MTP15008I Thru MTP15018I



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
- Glass passivated junctions



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
- Weight: 220g (7.8 ozs)

PRIMARY CHARACTERISTICS

$I_{F(AV)}$	150A
V_{RRM}	800V to 1800V
I_{FSM}	1800A
I_R	20 μ A
V_F	1.40V
$T_{Jmax.}$	150°C

Nell High Power Products

MAJOR RATINGS AND CHARACTERISTICS (T _A = 25°C unless otherwise noted)							
PARAMETER	SYMBOL	MTP150..I					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}	1800					A
Rating (non-repetitive, for t greater than 1 ms and less than 10 ms) for fusing	I ² t	16.2					KA 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 125					°C

ELECTRICAL CHARACTERISTICS (T _A = 25°C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	MTP150..I					UNIT
			08	10	12	16	18	
Maximum instantaneous forward drop per diode	I _F = 150A	V _F	1.40					V
Maximum reverse DC current at rated DC blocking voltage per diod	T _A = 25°C	I _R	20					µA
	T _A = 150°C		6					mA

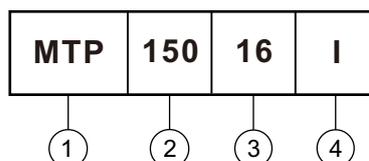
THERMAL AND MECHANICAC (T _A = 25°C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	MTP150..I					UNIT
			08	10	12	16	18	
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	R _{θJC} ⁽¹⁾	0.14					°C/W
Mounting torque to heatsink M6 to terminal M6 ± 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			220					g

Notes

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

Ordering Information Tabel

Device code



- | | |
|---|--|
| 1 | - Module type: "MTP" for 3Φ Bridge |
| 2 | - I _{F(AV)} rating : "150" for 150A |
| 3 | - Voltage code : code x 100 = V _{RRM} |
| 4 | - Package outline : "I" type package. |

Fig.1 Forward current vs. Forward voltage

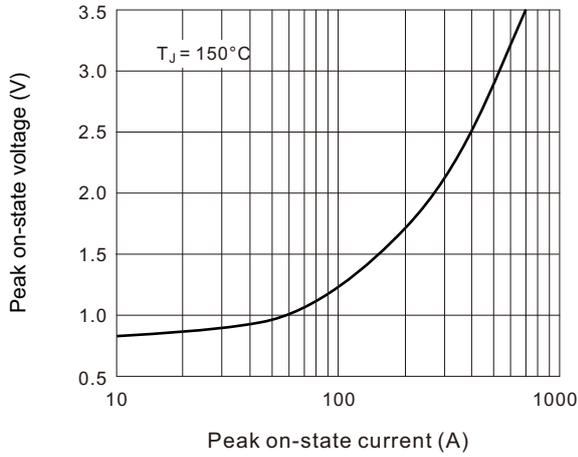


Fig.2 Thermal Impedance (junction to case)

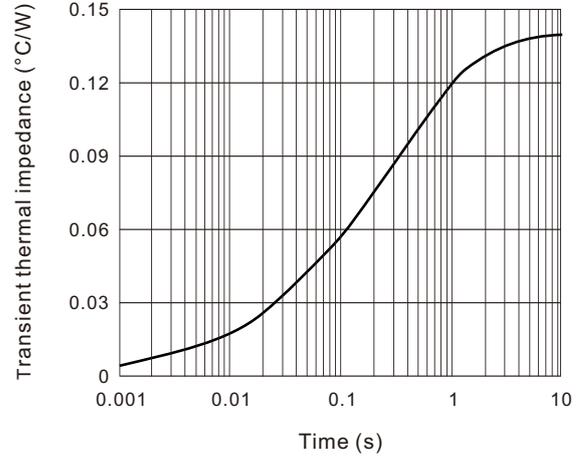


Fig.3 Power consumption vs. Average current

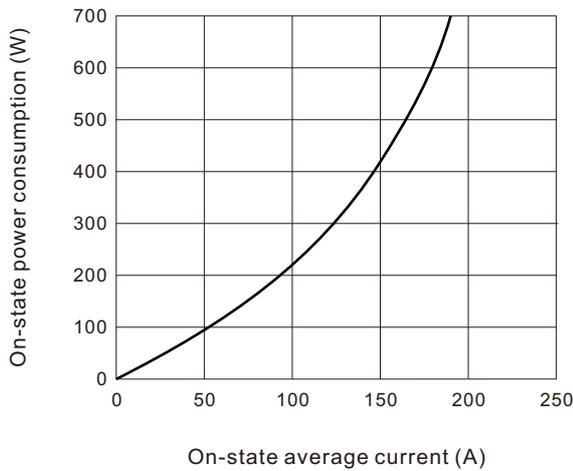


Fig.4 Case temperature vs. on-state average current

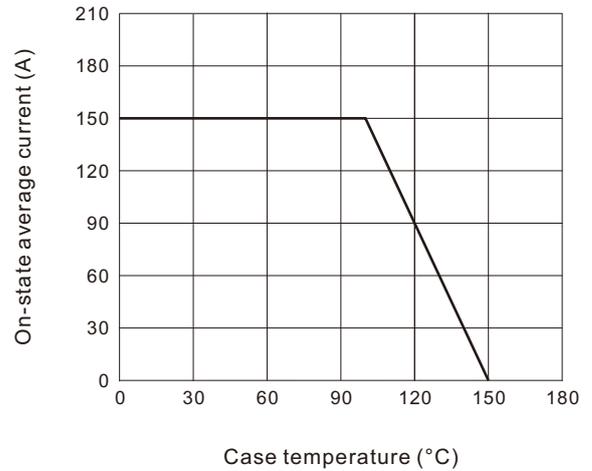


Fig.5 Forward surge current vs Cycle

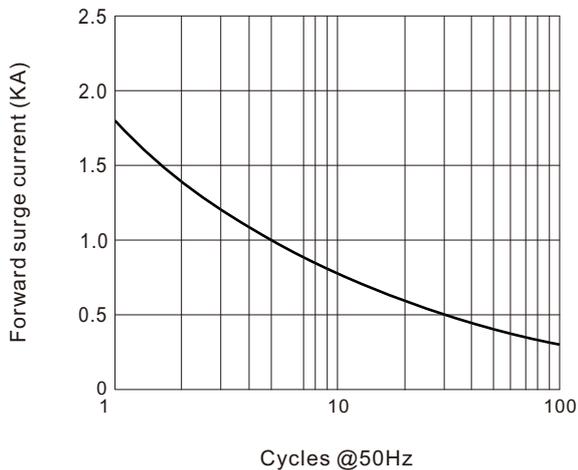


Fig.6 I²t characteristic

