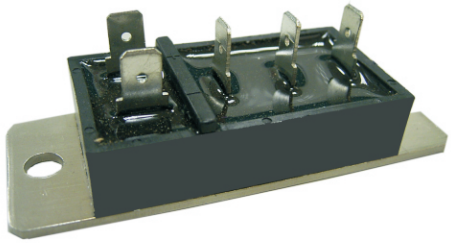
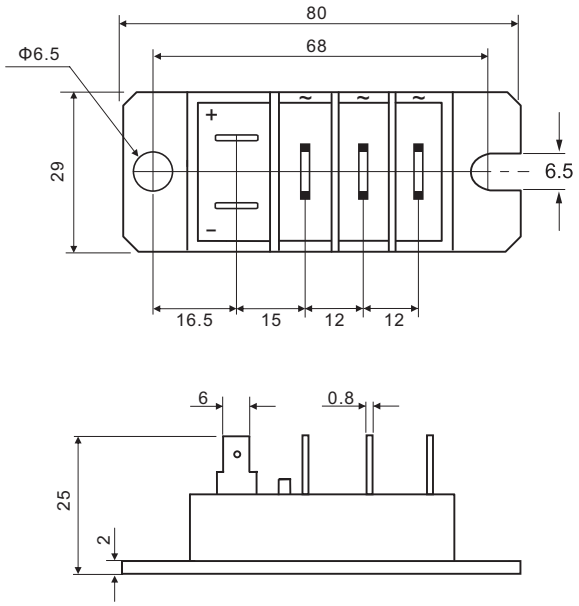
Glass Passivated Three-Phase Bridge Rectifier

30A/1600V

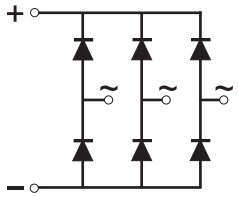




FEATURES

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

RoHS COMPLIANT



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**: 120g (4.2 ozs)

PRIMARY CHARACTERRISTICS	
$I_{F(AV)}$	30A
V_{RRM}	1600V
I_{FSM}	500A
I_R	5 μA
V_F	1.1V
$T_{J\ max.}$	150°C

MAJOR RATINGS AND CHARACTERISTICS (T_A = 25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**MTP3016**	**UNIT**
Maximum repetitive peak reverse voltage	V_{RRM}	1600	V
Peak reverse non-repetitive voltage	V_{RSM}	1700	V
Maximum DC blocking voltage	V_{DC}	1600	V
Maximum average forward rectified output current	$I_{F(AV)}$	30	A
Peak forward surge current single sine-wave superimposed on rated load	I_{FSM}	500	A
Rating (non-repetitive, for t greater than 1 ms and less than 8.3 ms) for fusing	I^2t	1200	A^2s
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**	**MTP3016**	**UNIT**
Maximum instantaneous forward drop per diode	I_F =30A	V_F	1.1	V
Maximum reverse DC current at rated DC blocking voltage per diod	T_A = 25°C	I_R	20	μA
	T_A = 150°C		2000	

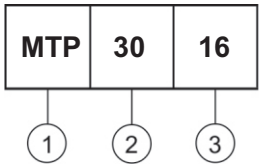
THERMAL AND MECHANICAC (T_A = 25°C unless otherwise noted)				
PARAMETER	**TEST CONDITIONS**	**SYMBOL**	**MTP3016**	**UNIT**
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	$R_{\theta JC}$ (1)	0.44	°C/W
Mounting torque ± 10 % to heatsink M6	A mounting compound is recommended and the torque should be rechecked after a period of 3 hours to allow for the spread of the compound.		4	Nm
Approximate weight			120	g

Notes

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

(2) M6 screw.

Device code



1 - Module type: "MTP" for 3Ø Bridge

2 - $I_{F(AV)}$ rating: "30" for 30A

3 - Voltage code: code x 100 = V_{RRM}

Fig.1 Forward characteristic

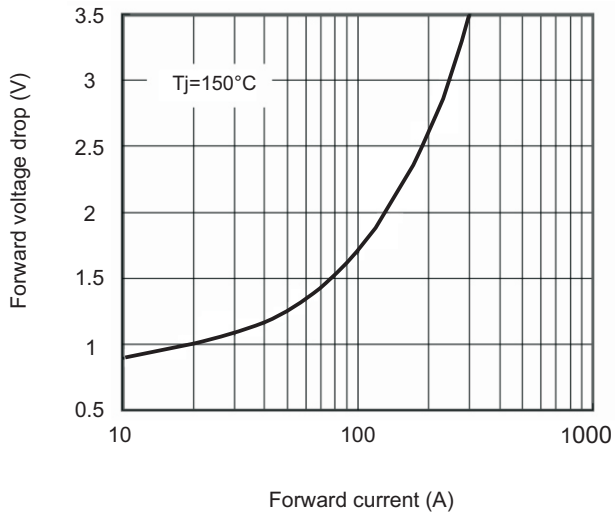


Fig.2 Thermal Impedance (junction to case)

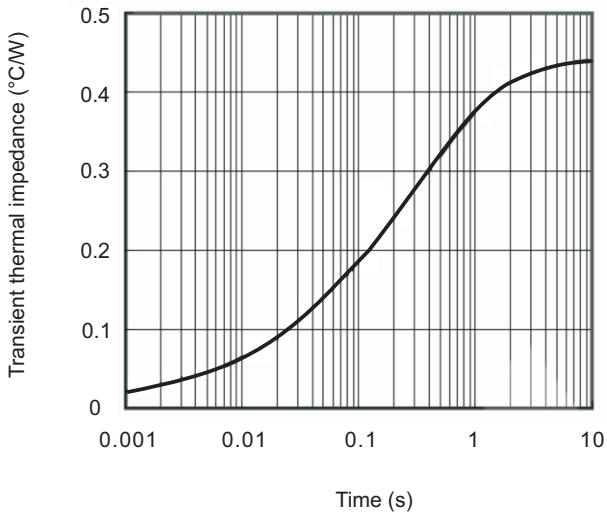


Fig.3 Power dissipation vs. output current

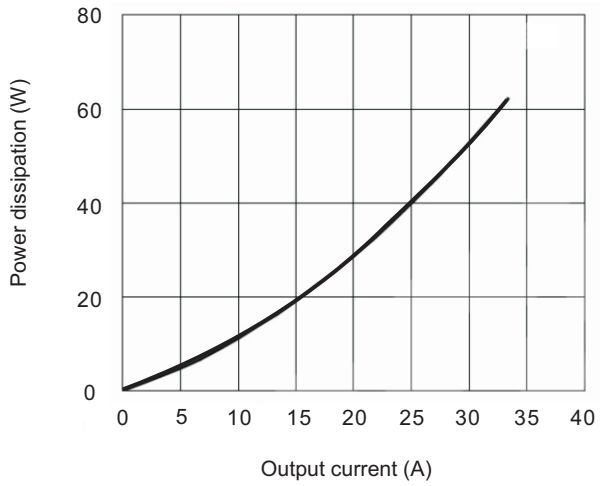


Fig.4 Case temperature vs output current

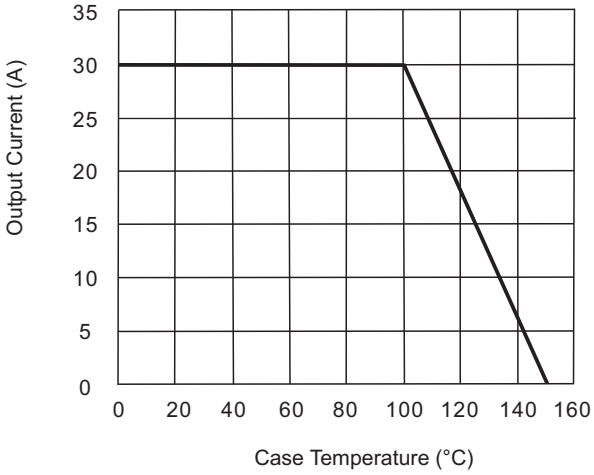


Fig.5 Forward surge current vs. cycle

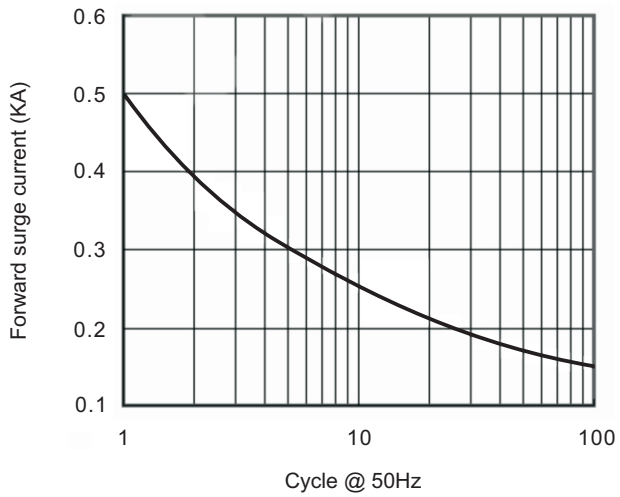


Fig.6 I^2t characteristic

