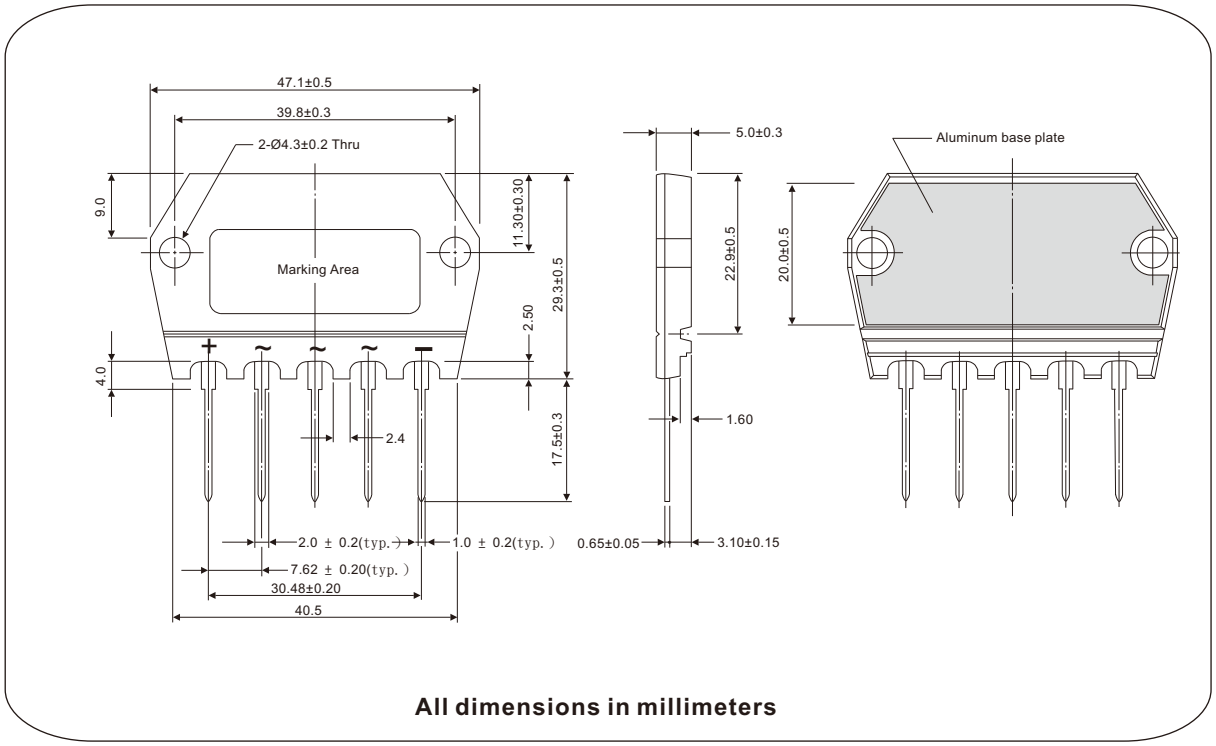
Glass Passivated Three-Phase Bridge Rectifier, 35A

MTP3512H Thru MTP3520H

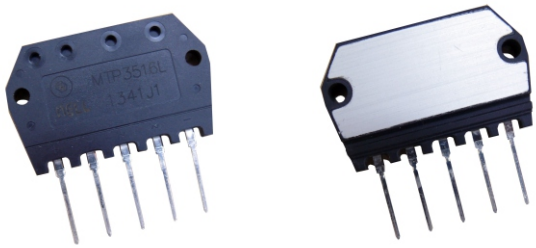


All dimensions in millimeters

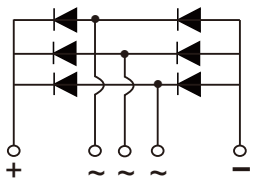
FEATURES

- 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



Front Rear



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
- High heat-conduction rate
- Low temperature rise
- High temperature soldering guaranteed :
  260°C/10 second, 2.3kg tension force
- Weight: 15g (0.53 ozs)

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	35A
V_{RRM}	1200V to 2000V
I_{FSM}	500A
I_R	10 μA
V_F	1.10V
$T_{J\ max.}$	150°C

MAJOR RATINGS AND CHARACTERISTICS (T_A = 25°C unless otherwise noted)						
PARAMETER	SYMBOL	MTP35..H				UNIT
		12	16	18	20	
Maximum repetitive peak reverse voltage	V_{RRM}	1200	1600	1800	2000	V
Peak reverse non-repetitive voltage	V_{RSM}	1300	1700	1900	2100	V
Maximum DC blocking voltage	V_{DC}	1200	1600	1800	2000	V
Maximum average forward rectified output current, T_C = 90°C	$I_{F(AV)}$	35				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 10 ms) for fusing	I^2t	1250				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 150				°C

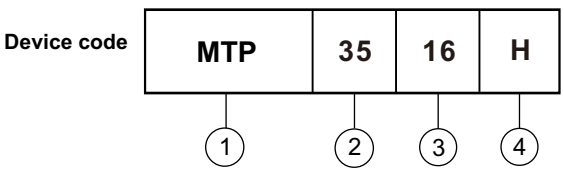
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)							
PARAMETER	TEST CONDITIONS	SYMBOL	MTP35..H				UNIT
			12	16	18	20	
Maximum instantaneous forward drop per diode	I_F = 35A	V_F	1.10				V
Maximum reverse DC current at rated DC blocking voltage per diod	T_A = 25°C	I_R	10				μA
	T_A = 150°C		1000				

THERMAL AND MECHANICAL (T_A = 25°C unless otherwise noted)							
PARAMETER	TEST CONDITIONS	SYMBOL	MTP35..H				UNIT
			12	16	18	20	
Typical thermal resistance junction to case	Single-side heat dissipation, sine half wave	$R_{th(j-c)}$ (1)	0.65				°C/W
Mounting torque ± 10 % to heatsink M4	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.		2.0				N·m
Approximate weight			15				g

Notes

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

Ordering Information Tabel



1 - Product type : "MTP" Package,3Ø Bridge (Three-phase bridge)

2 - $I_{F(AV)}$ rating : "35" for 35A

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

4 - H: SIP (Single-in-line) package with Aluminum base plate (heat sink)

Fig.1 Forward current derating curve

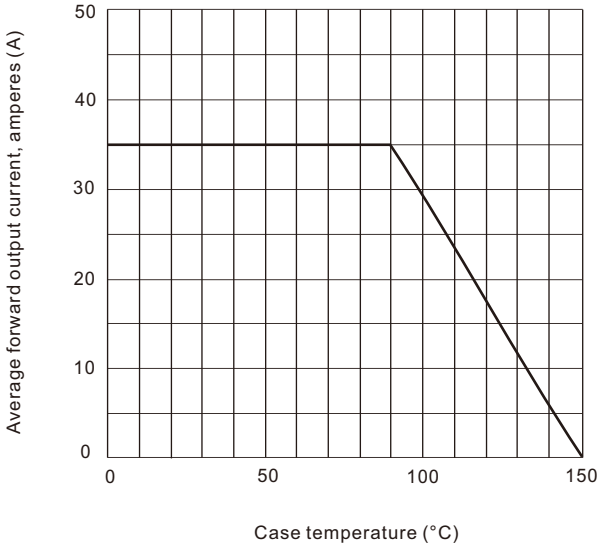


Fig.2 Forward characteristics

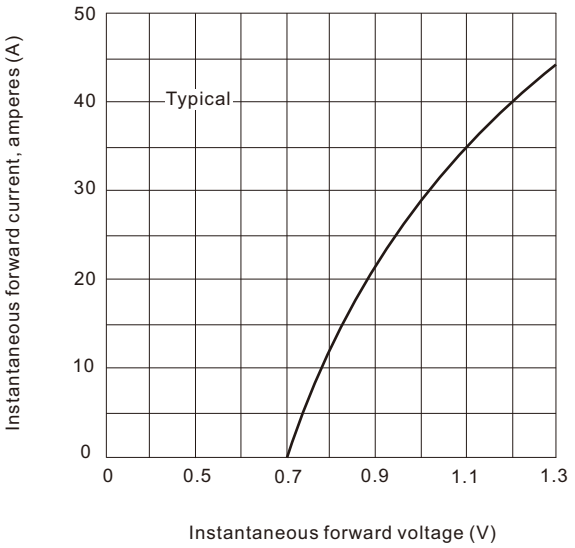


Fig.3 Transient thermal impedance

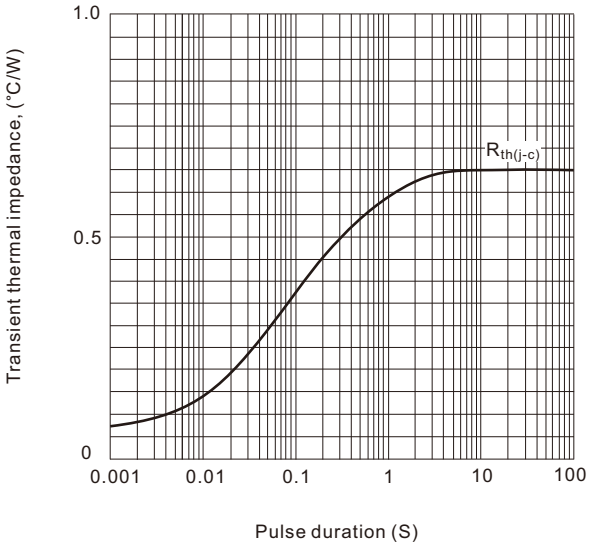


Fig.4 Max Non-repetitive forward surge current