

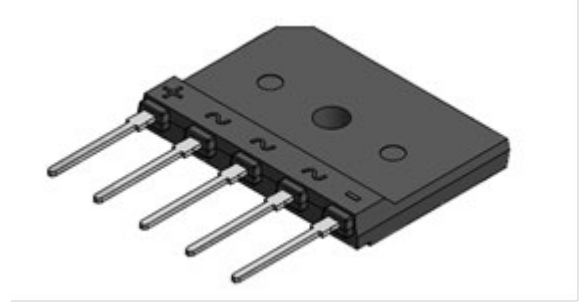
3PB5012 Thru 3PB5016

High Current Glass Passivated Molding Three -Phase Bridge Rectifier

Reverse Voltage 1200 to 1600V Forward Current 50A

FEATURES

- Superior thermal conductivity
- High current capacity with small package
- Glass passivated chip junctions
- Superior thermal conductivity
- High IFSM
- Plastic Package material has Underwriters Laboratory Flammability Classification 94V-0



1. Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Item	Symbol	3PB5012	3PB5014	3PB5016	Unit
Maximum repetitive voltage	VRM	1200	1400	1600	V
Maximum RMS Voltage	VRMS	840	980	1120	V
Maximum DC Blocking Voltage	VDC	1200	1400	1600	V
Peak Reverse Current (per leg) @Tj = 25°C	IR	10			μA
At Rated DC Blocking Voltage @Tj = 125°C		5			mA
Average rectified forward current 50 or 60Hz sine wave, R-load with heatsink Tj<=150°C	Io	50			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	IFSM	500			A
I ² t Rating for Fusing	I ² t	1000			A ² sec
RMS Isolation Voltage from Case to Lead	V _{ISOL}	2500			V
Max instantaneous forward voltage @25A/25°C	VF	1.1			V
Typical Thermal Resistance without heatsink(1)	RθJA	5			°C/W
Typical Thermal Resistance with heatsink(2)	RθJC	0.6			°C/W
Max operating junction temperature	Tj	-55~150			°C
Storage temperature	Tstg	-55~150			°C
Max Mounting torque	Tor	0.8			N • m

Note

- (1) Unit mounted on P.C.B without heatsink
- (2) Unit case mounted on aluminum 110x60x25mm plate heatsink

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2. Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Current Derating Curve

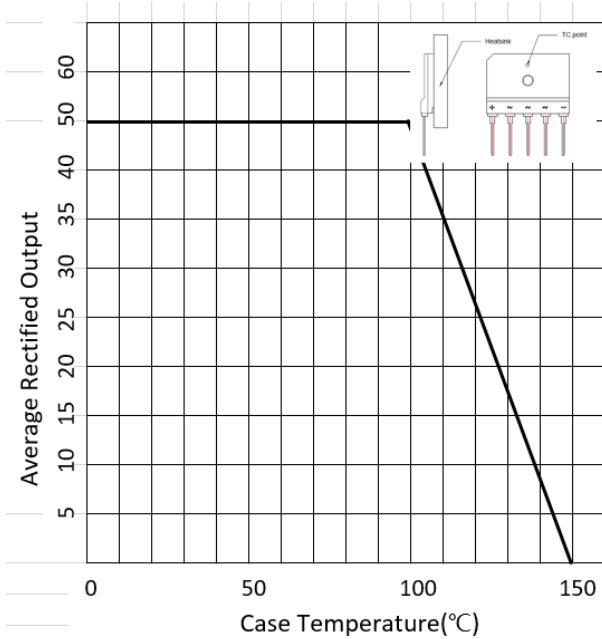


Fig.2 Typical Reverse Characteristics

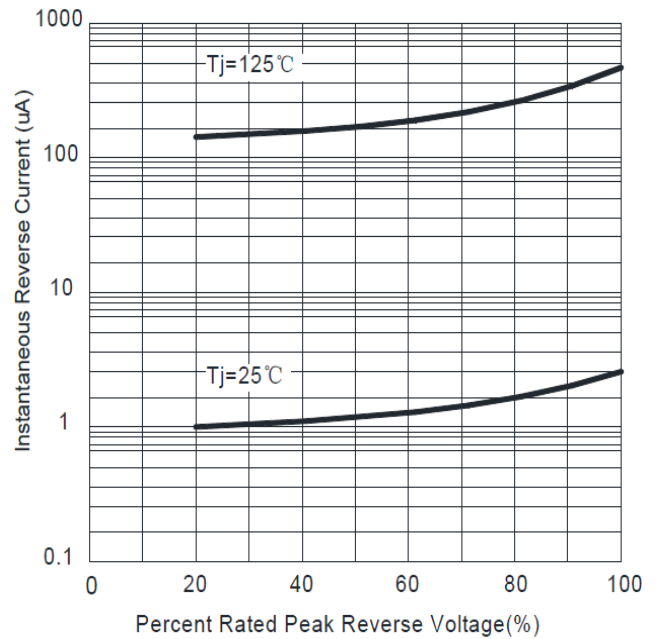


Fig.3 Forward Voltage

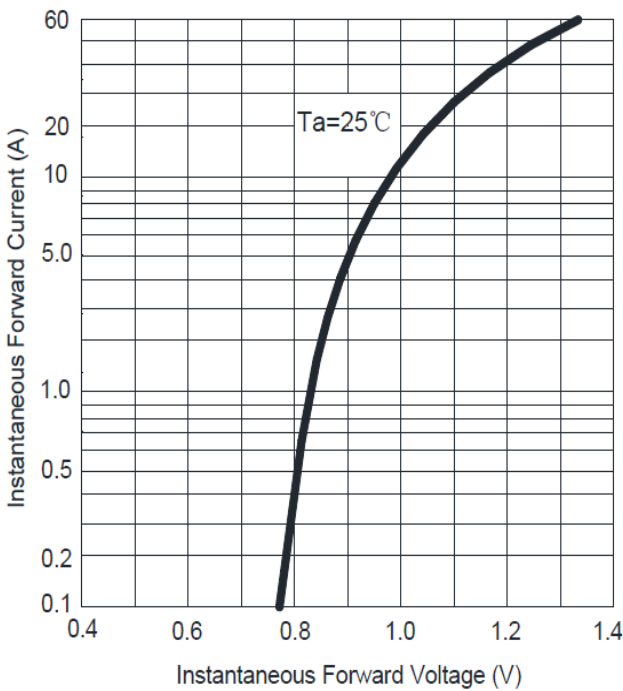
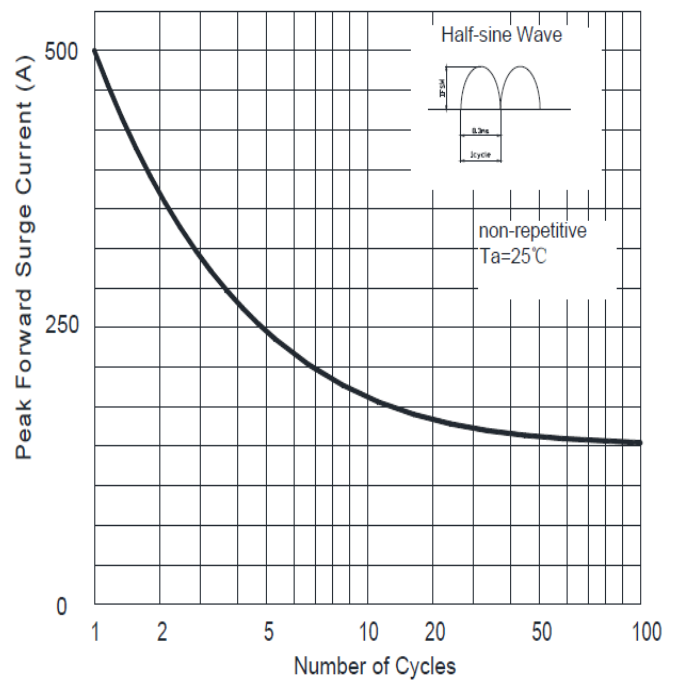
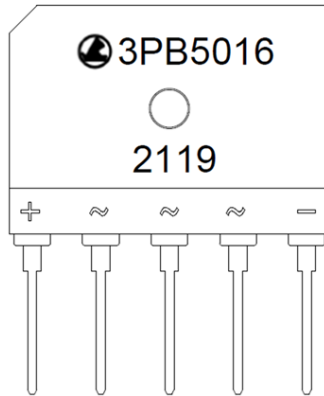


Fig.4 Peak Surge Forward Capability



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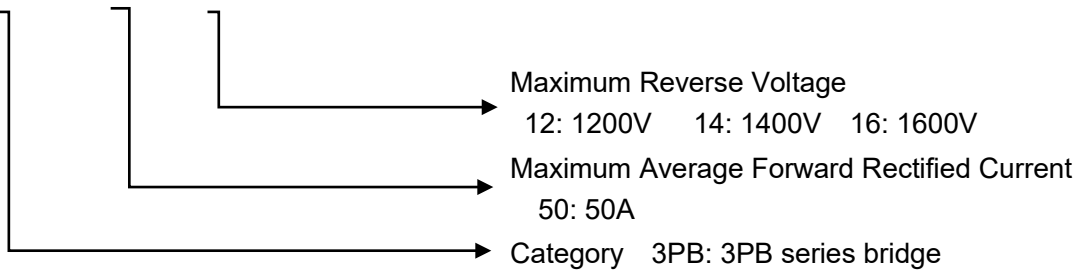
3. Marking Identification



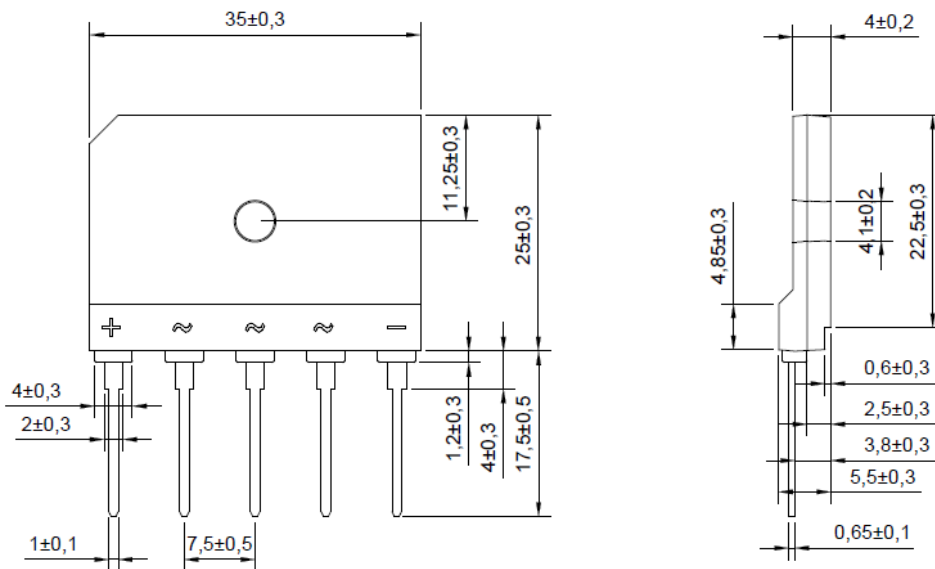
Note:

生产日期码包含4位数字，例如“2119”，前两个数字“21”表示为2021年，另外二个数字“19”是指第19周，即表示该产品为2021年19周生产。

型号：3PB 50 16



4. Dimension



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5. Update Record

版次	更新记录	更新作者	更新日期
1	第一版	伍泽雄	2021-5-10
2	增加 Tstg 温度下限值	陈帅	2021-8-18
3	增加 Tj 温度下限值	陈帅	2023-11-01

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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