

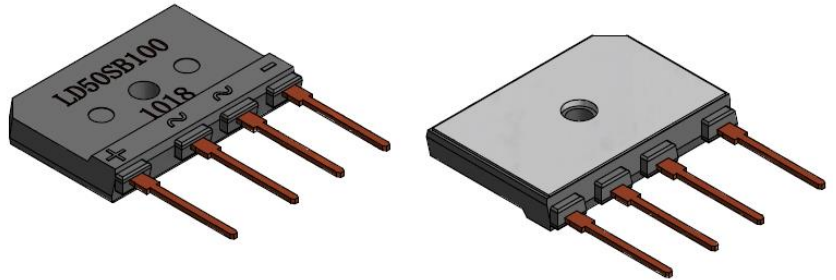
LD50SB10 Thru LD50SB100

High Current Glass Passivated Molding Single-Phase Bridge Rectifier

Reverse Voltage 600 to 1000V Forward Current 50 A

FEATURES

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



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

| Parameter Symbol | Symbol | LD50 SB10 | LD50 SB20 | LD50 SB40 | LD50 SB60 | LD50 SB80 | LD50S B100 | LD50SB 120 | Unit |
|---|------------------|--|-----------|-----------|-----------|-----------|------------|------------|-------|
| Maximum repetitive voltage | VRRM | 100 | 200 | 400 | 600 | 800 | 1000 | 1200 | V |
| Maximum RMS Voltage | VRMS | 70 | 140 | 280 | 420 | 560 | 700 | 840 | V |
| Maximum DC Blocking Voltage | VDC | 100 | 200 | 400 | 600 | 800 | 1000 | 1200 | V |
| Maximum DC reverse current TA=25 °C | IR | 10 | | | | | | | μA |
| at rated DC blocking voltage TA=125°C | | 500 | | | | | | | |
| Maximum average forward rectified output current at | Io | 50 | | | | | | | A |
| | | 10 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load | IFSM | 450 | | | | | | | A |
| Rating of fusing (t<8.3ms) | i ² t | 840 | | | | | | | A2sec |
| Dielectric strength terminals to case, AC 1 minute Current 1mA | Vdia | 2.5 | | | | | | | KV |
| Max instantaneous forward voltage at 25A | VF | 1.05 | | | | | | | V |
| Operating junction temperature | TJ | -55~150 | | | | | | | °C |
| Maximum thermal on P.C.B. without heat-sink | RθJA | 15 | | | | | | | °C/W |
| resistance per leg on Al plate heat-sink ⁽³⁾ | RθJC | 0.75 | | | | | | | |
| Storage temperature | Tstg | -55~150 | | | | | | | °C |
| Mounting torque | Tor | Rating Torque : 0.8 (Suggests 0.45~0.65) | | | | | | | N.m |

Notes:

- (1) Unit case mounted on aluminum plate heatsink
- (2) Units mounted on P.C.B. without heatsink
- (3) Device mounted on the heat sink

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2. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 Derating Curve

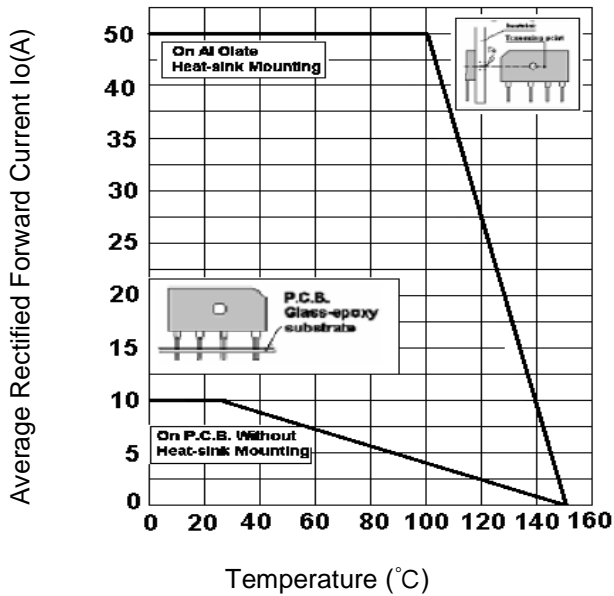


Fig.2 Typical Reverse Characteristics

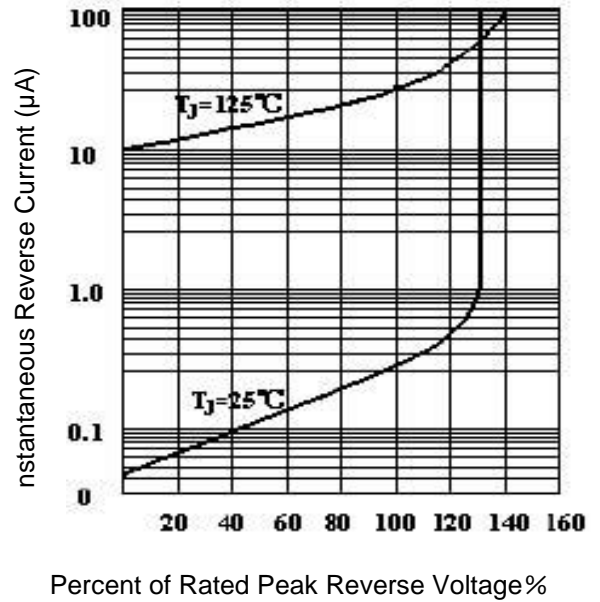


Fig.3 Forward Voltage

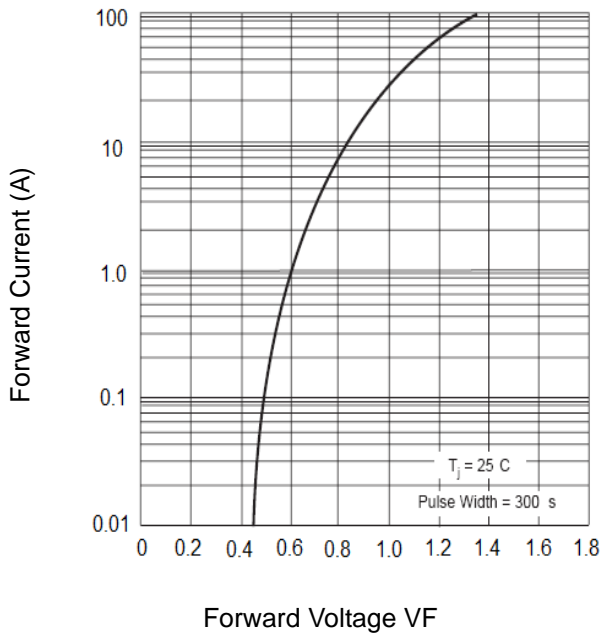
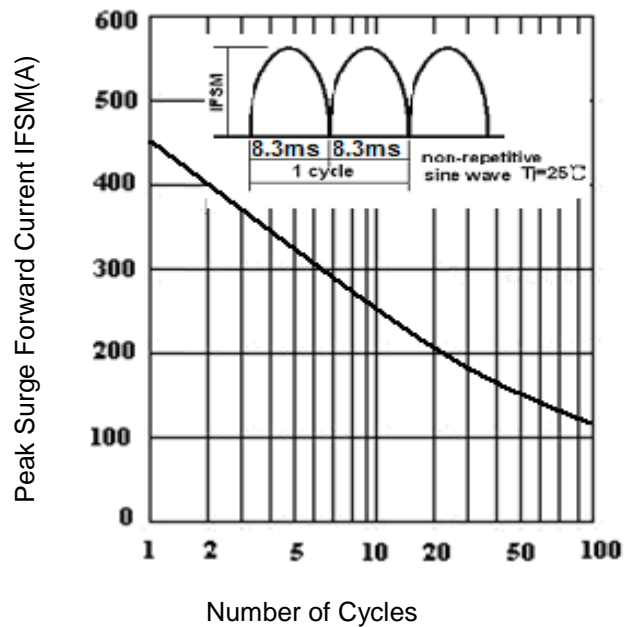
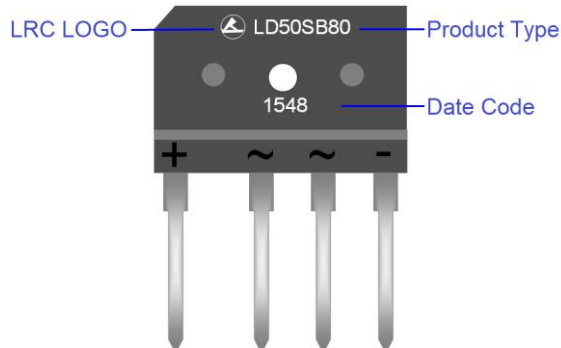


Fig.4 Peak Surge Forward Capability



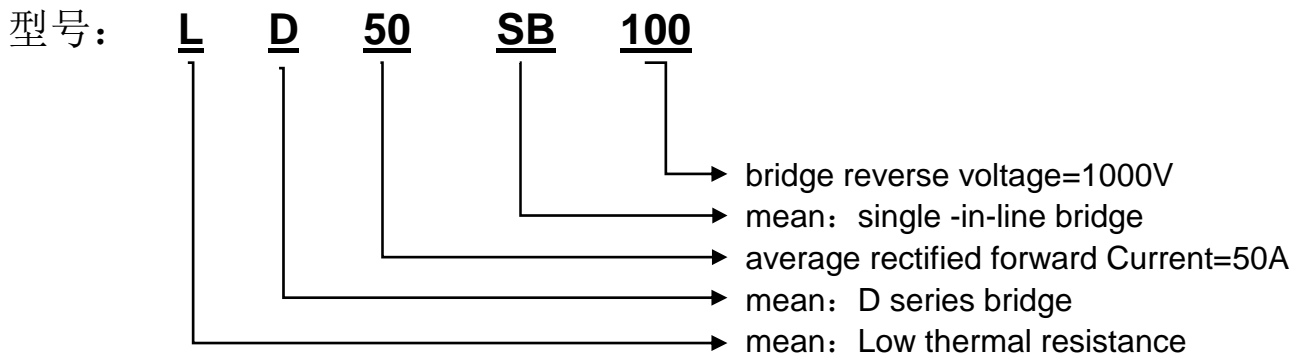
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3. Marking Identification

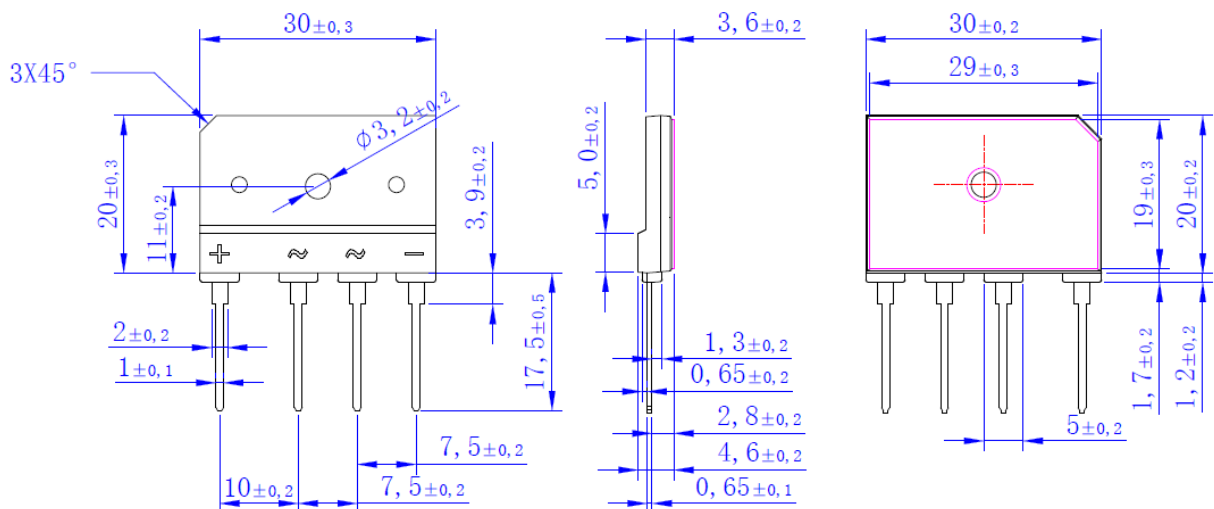


Note

The date code contains four digits, such as "1548". The first two digits "15" denote 2015 year. The other two digits "48" denote the 48th week. The "1548" Indicates that this product was produced in the 48th week of 2015.



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 | 王锋 | 2018-8-25 |
| 2 | 调整铝板尺寸 | 伍泽雄 | 2018-11-06 |
| 3 | 增加电气间隙 | 伍泽雄 | 2020-5-28 |
| 4 | 热阻 R θ JA 从 18°C/W 更新至 15°C/W | 伍泽雄 | 2021-4-8 |