

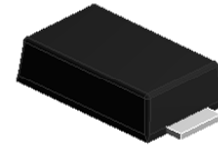


LF1 thru LF7

Surface Mount Glass Passivated Fast Recovery Rectifier
 Reverse Voltage 50~1000V Forward Current 1A

Features

- Glass passivated fast recovery rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile, typical thickness 1.0mm
- AEC-Q101 qualified



eSGB (SMAF)

Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies, and other consumer applications.

| Maximum Ratings (TA = 25 °C unless otherwise noted) | | | | | | | | | |
|--|------------------|---------------|-----|-----|-----|-----|-----|------|--------------------|
| Parameter | Symbol | LF1 | LF2 | LF3 | LF4 | LF5 | LF6 | LF7 | Unit |
| Maximum repetitive peak reverse voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current | IF(AV) | 1.0 | | | | | | | A |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | IFSM | 30 | | | | | | | A |
| Rating for fusing(t<8.3ms) | I ² t | 3.7 | | | | | | | A ² sec |
| Operating junction and storage temperature range | TJ, TSTG | - 55 to + 150 | | | | | | | °C |

| Electrical Characteristics (TA = 25 °C unless otherwise noted) | | | | | | | | | | |
|--|---|------------------|---------|-----|-----|-----|-----|-----|-----|------|
| Parameter | Test Conditions | Symbol | LF1 | LF2 | LF3 | LF4 | LF5 | LF6 | LF7 | Unit |
| Maximum instantaneous forward voltage | IF=1 A, TA=25°C | V _F | 1.3 | | | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage | TA=25°C TA=125°C | I _R | 5 50 | | | | | | | μA |
| Maximum reverse recovery time | I _F =0.5A, I _R =1.0A, I _{rr} =0.25A | t _{rr} | 150 | | | | 250 | 500 | | nS |
| Typical junction capacitance | 4.0 V, 1 MHz | C _J | 11 | | | | | | | pF |
| Typical thermal resistance ¹⁾ | junction to case | R _{θJC} | 45 | | | | | | | °C/W |
| | junction to mount | R _{θJM} | 12 | | | | | | | |

Note:1),The thermal resistance from junction to case and mount,mounted on P.C.B with 8x8mm copper pads,2 OZ,FR4 PCB



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Ratings and Characteristics Curves

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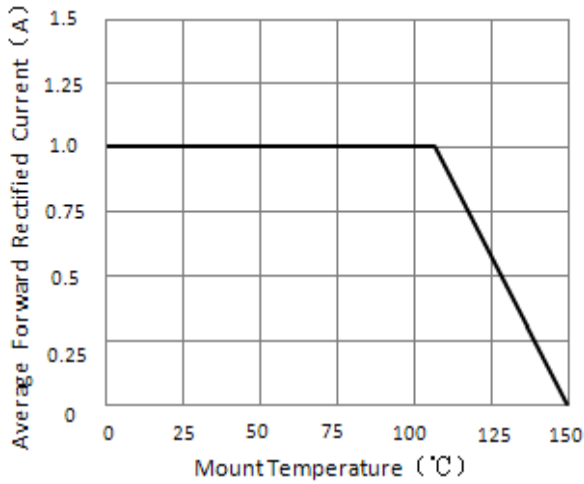


Figure 1. Forward Current Derating Curve

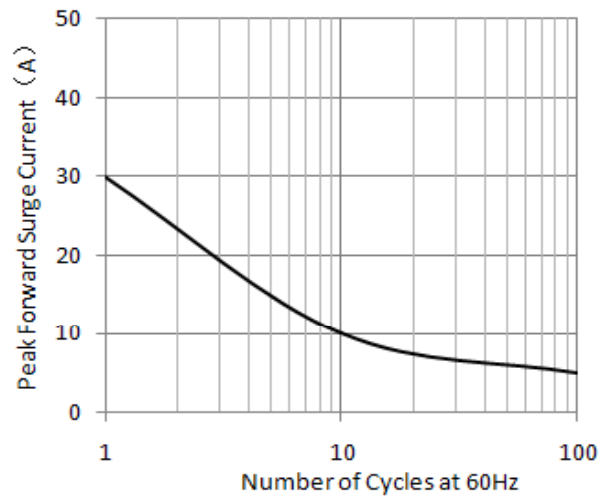


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

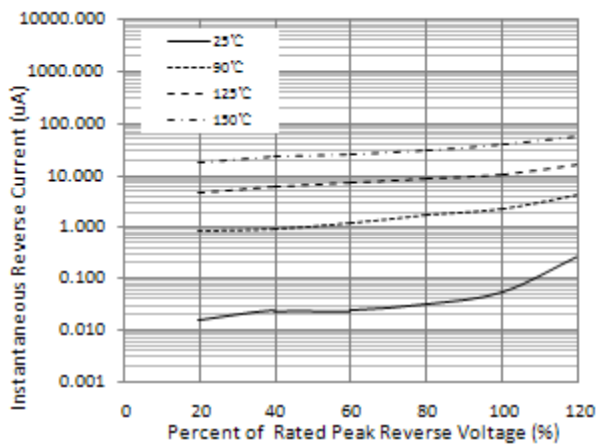


Figure 3. Typical Reverse Characteristics

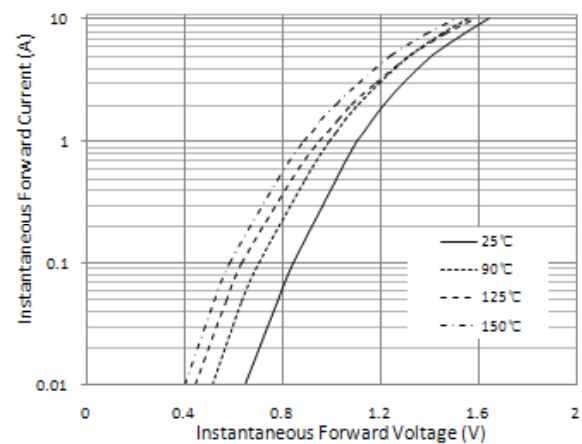
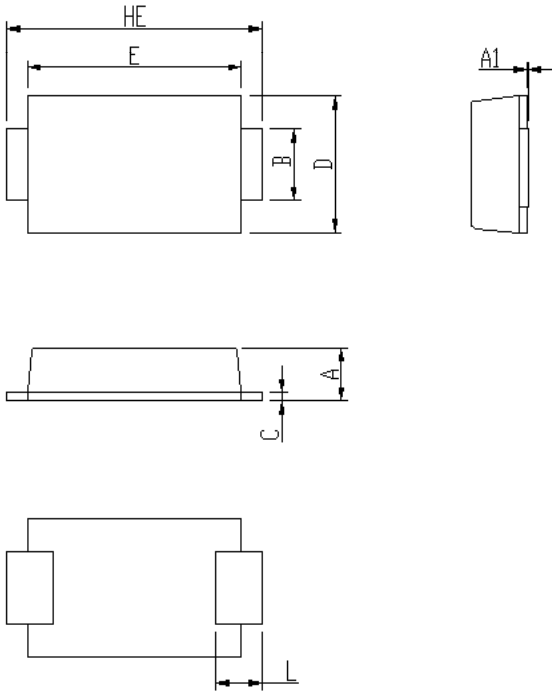


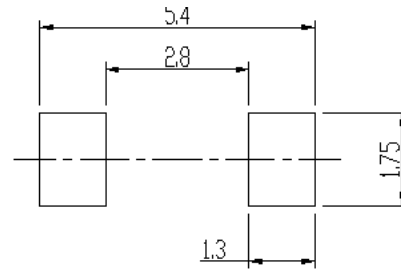
Figure 4. Typical Instantaneous Forward Characteristics

Package Outline Dimensions



| DIM | Unit: mm | | Unit: inch | |
|-----|----------|------|------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.92 | 1.08 | 0.036 | 0.043 |
| A1 | 0 | 0.1 | 0.000 | 0.004 |
| B | 1.25 | 1.45 | 0.049 | 0.057 |
| C | 0.1 | 0.25 | 0.004 | 0.010 |
| D | 2.6 | 2.8 | 0.102 | 0.110 |
| E | 4.1 | 4.3 | 0.161 | 0.169 |
| L | 0.7 | 1.1 | 0.028 | 0.043 |
| HE | 4.8 | 5.2 | 0.189 | 0.205 |

Soldering footprint

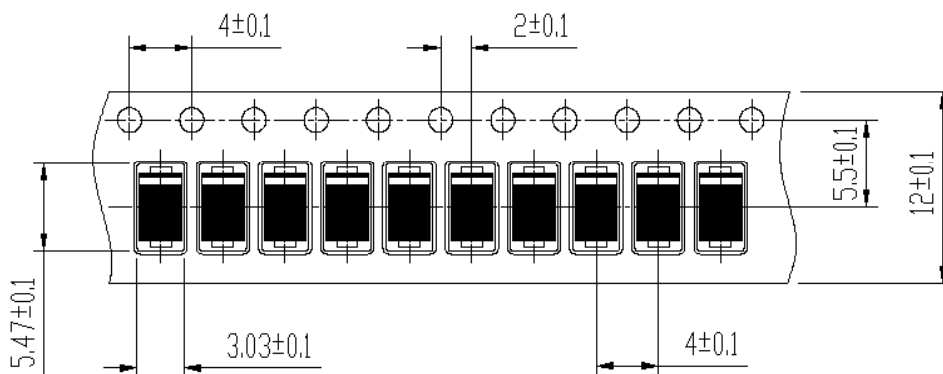


Packing Information

Packing quantities:

| Reel size | Quantity/reel | Quantity/inner Box | Quantity/Carton |
|-----------|---------------|--------------------|-----------------|
| 7" | 3K | 21K | 84K |
| 13" | 10K | 20K | 180K |

Tape & Reel Specification





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