

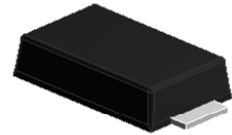


# L1A thru L7A

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

## Features

- Glass passivated standard 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   | L1A           | L2A | L3A | L4A | L5A | L6A | L7A  | 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 at TL                                    | IF(AV)   | 1.0           |     |     |     |     |     |      | A    |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | IFSM     | 30            |     |     |     |     |     |      | A    |
| Operating junction and storage temperature range                                   | TJ, TSTG | - 55 to + 150 |     |     |     |     |     |      | °C   |

| Electrical Characteristics (TA = 25 °C unless otherwise noted) |                   |        |     |     |     |     |     |     |       |      |
|--|-------------------|--------|-----|-----|-----|-----|-----|-----|-------|------|
| Parameter  | Test Conditions   | Symbol | L1A | L2A | L3A | L4A | L5A | L6A | L7A   | Unit |
| Maximum instantaneous forward                                  | 1 A               | VF     | 1.1 |     |     |     |     |     | Volts |      |
| Maximum DC reverse current at rated DC blocking voltage        | TA=25°C           | IR     | 5   |     |     |     |     |     | µA    |      |
|  | TA=125°C          |        | 50  |     |     |     |     |     |       |      |
| Typical reverse recovery time                                  | IF=0.5A, IR=1.0A, | trr    | 1.8 |     |     |     |     |     | µS    |      |
|  | Ir=0.25A          |        |     |     |     |     |     |     |       |      |
| Typical junction capacitance                                   | 4.0 V, 1 MHz      | CJ     | 6   |     |     |     |     |     | pF    |      |
| Typical thermal resistance <sup>1)</sup>                       | junction to mount | RθJM   | 10  |     |     |     |     |     | °C/W  |      |

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



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## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

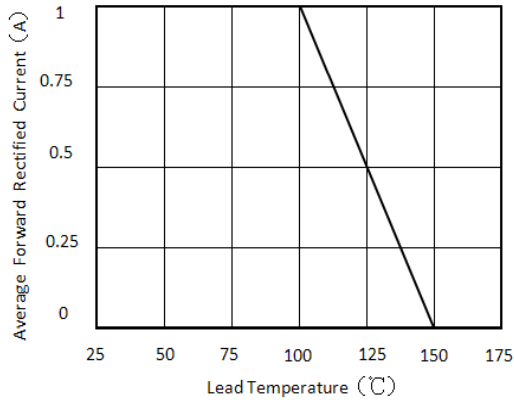


Figure 1. Forward Current Derating Curve

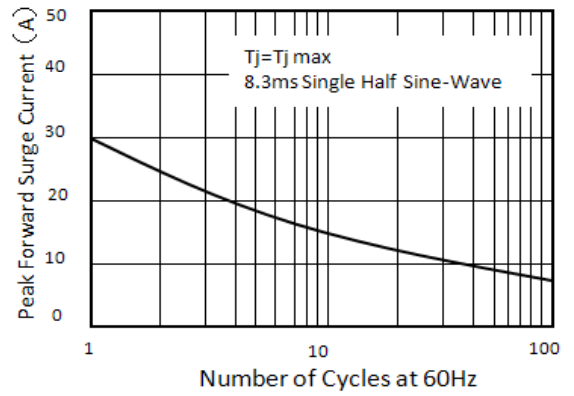


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

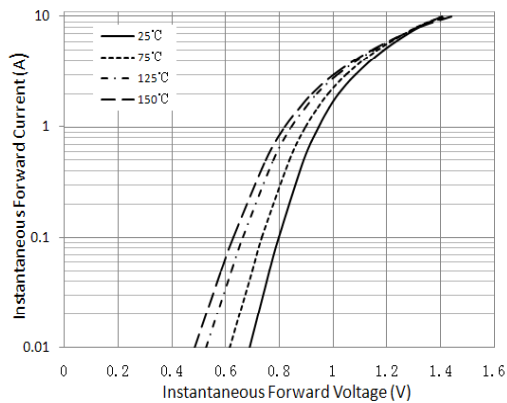


Figure 3. Typical Instantaneous Forward Characteristics

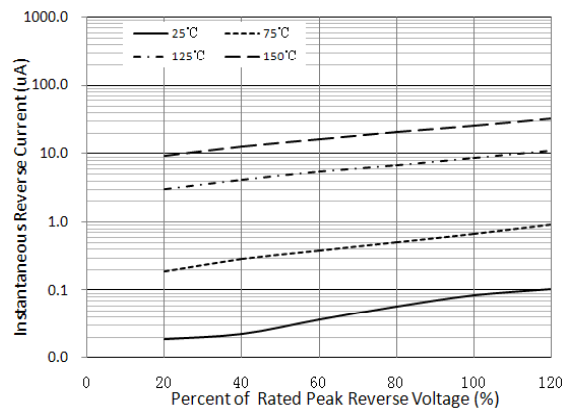


Figure 4. Typical Reverse Characteristics

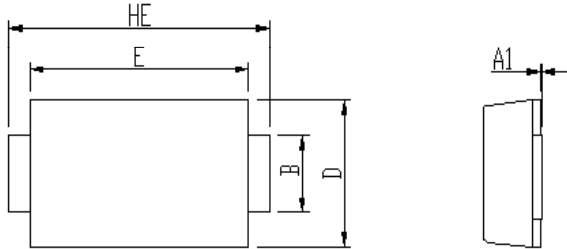


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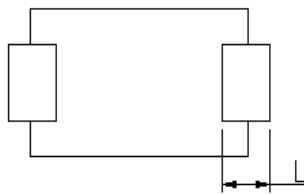
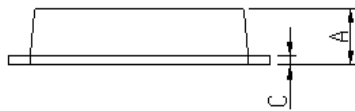
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## Package Outline Dimensions

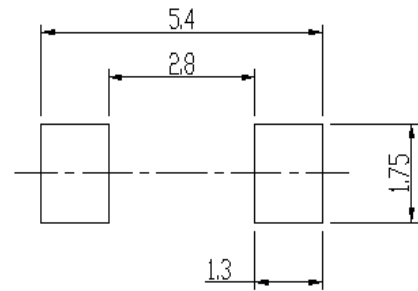
in inches (millimeters)



| 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

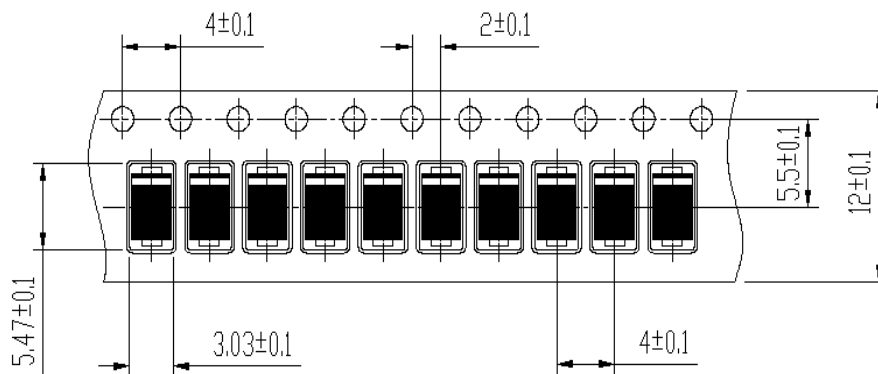


## Packing Information

**Packing quantities:**

10,000 pcs/Reel, 12mm Tape, 13" Reel

**Tape & Reel Specification**





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