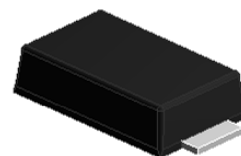


## Features

- Glass passivated High Efficiency rectifiers
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- Low profile, typical thickness 1.0mm



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   | LH1           | LH2 | LH3 | LH4 | LH5 | LH6 | LH7  | 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    |
| Operating junction and storage temperature range                                   | TJ, TSTG | - 55 to + 150 |     |     |     |     |     |      | °C   |

| Electrical Characteristics (TA = 25 °C unless otherwise noted) |   |                  |     |     |     |     |     |     |     |       |
|--|---|------------------|-----|-----|-----|-----|-----|-----|-----|-------|
| Parameter  | Test Conditions                         | Symbol           | LH1 | LH2 | LH3 | LH4 | LH5 | LH6 | LH7 | Unit  |
| Maximum instantaneous forward                                  | 1 A                                     | VF               | 1.3 |     |     |     | 1.7 |     |     | 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, I <sub>rr</sub> =0.25A | t <sub>rr</sub>  | 50  |     |     |     | 75  |     |     | nS    |
| Typical junction capacitance                                   | 4.0 V, 1 MHz                            | CJ               | 15  |     |     |     |     |     |     | pF    |
| Typical thermal resistance <sup>1)</sup>                       | juntion to mount                        | R <sub>θJM</sub> | 18  |     |     |     |     |     |     | °C/W  |

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

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

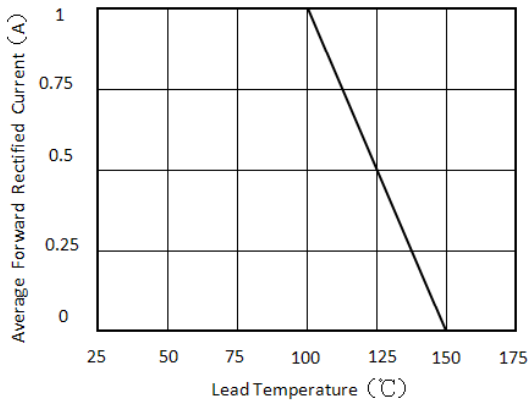


Figure 1. Forward Current Derating Curve

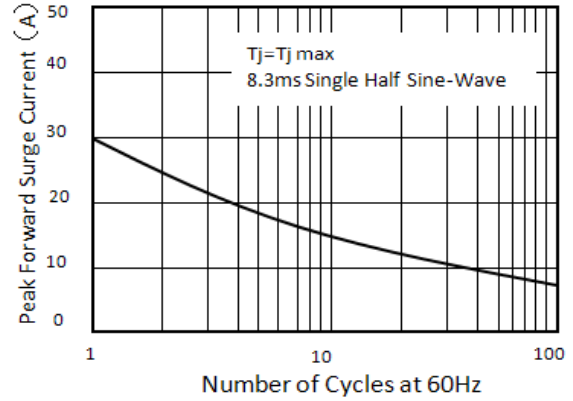


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

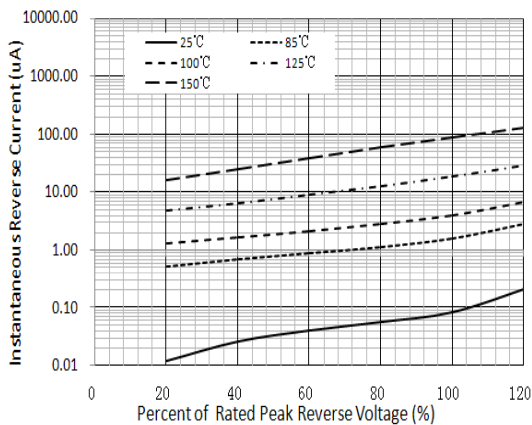


Figure 3. Typical Reverse Characteristics

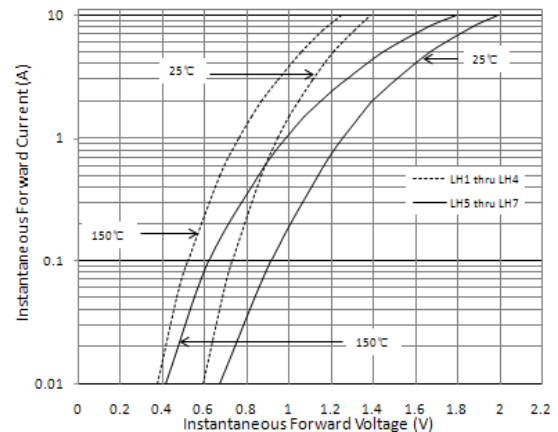
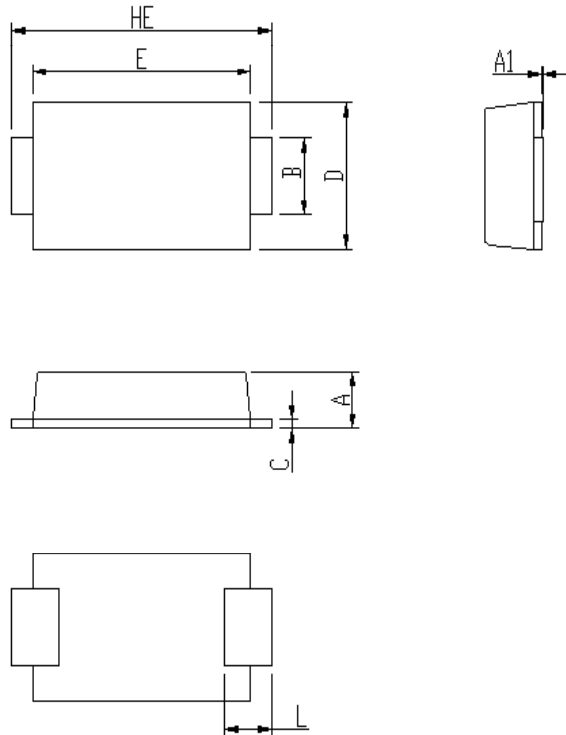


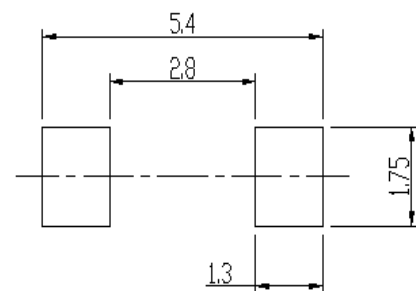
Figure 4. Typical Instantaneous Forward Characteristics

## 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(unit:mm)

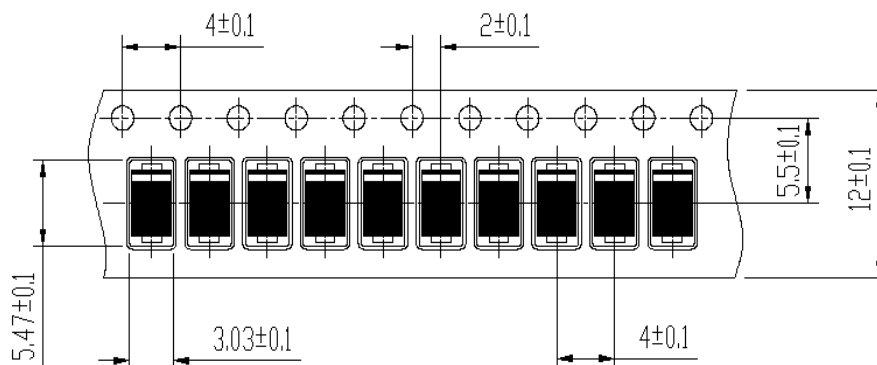


## Packing Information

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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