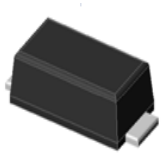
# FH1 thru FH7

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

## Features

- Glass passivated High Efficiency Rectifiers
- Very low profile - typical height of 1.0 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- High temperature soldering guaranteed: 260℃/10 seconds
- Halogen-free according to IEC 61249-2-21 definition

RoHS COMPLIANT



eSGA
(SOD-123FL)

## 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 | FH1 | FH2 | FH3 | FH4 | FH5 | FH6 | FH7 | 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 | FH1 | FH2 | FH3 | FH4 | FH5 | FH6 | FH7 | Unit |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum instantaneous forward voltage | 1 A | $V_F$ | 1.3 | | | | 1.7 | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | TA=25℃<br>TA=125℃ | $I_R$ | 5<br>100 | | | | | | | μA |
| Maximum reverse recovery time | $I_F$=0.5A,$I_R$=1.0A,<br>$I_{rr}$=0.25A | $t_{rr}$ | 50 | | | | 75 | | | nS |
| Typical thermal resistance[1)] | juntion to ambient | $R_{\theta JA}$ | 66 | | | | | | | ℃/W |
| | juntion to case | $R_{\theta JC}$ | 28 | | | | | | | |
| | juntion to mount | $R_{\theta JM}$ | 1 | | | | | | | |

Note:1),The thermal resistance from junction to ambient,case or mount,mounted on P.C.B with 5×5mm copper pads,2 OZ,FR4 PCB

## Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

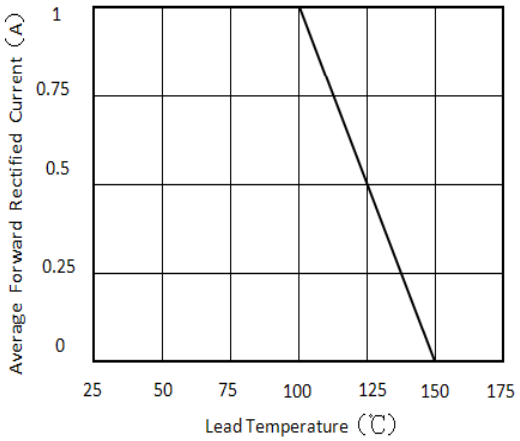



Figure 1.Forward Current Derating Curve

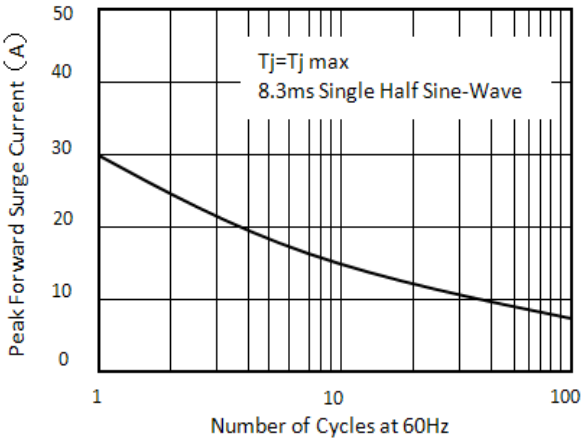



Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

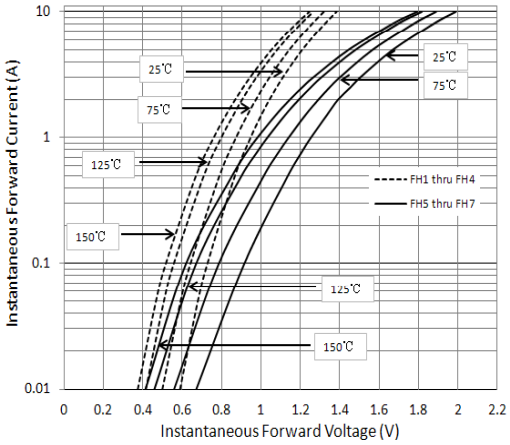



Figure 3. Typical Instantaneous Forward Characteristics

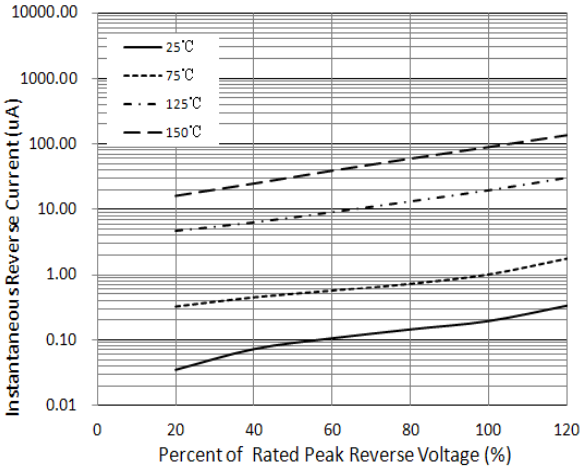
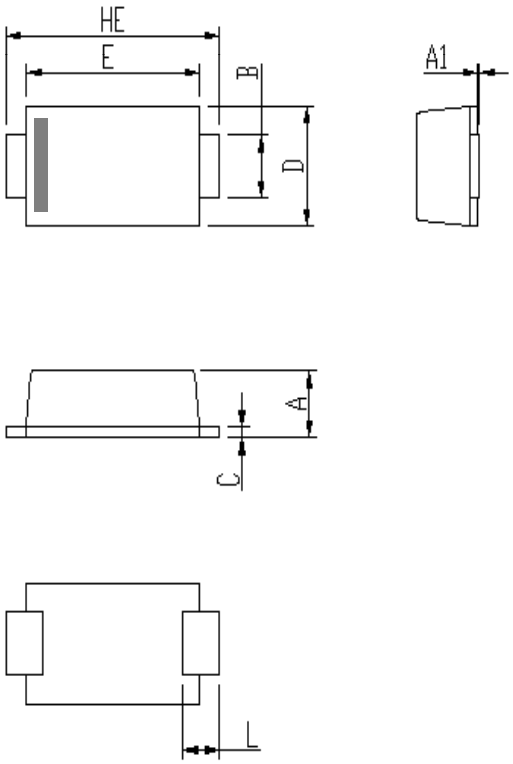



Figure 4. Typical Reverse Characteristics

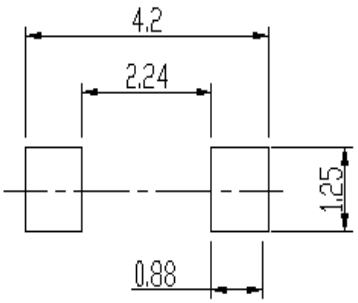
## Package Outline Dimensions

in inches (millimeters)




| DIM | Unit: mm | | Unit: inch | |
|---|---|---|---|---|
| | MIN | MAX | MIN | MAX |
| A | 0.9 | 1.08 | 0.035 | 0.043 |
| A1 | 0 | 0.1 | 0.000 | 0.004 |
| B | 0.85 | 1.05 | 0.033 | 0.041 |
| C | 0.1 | 0.25 | 0.004 | 0.010 |
| D | 1.7 | 2 | 0.067 | 0.079 |
| E | 2.9 | 3.1 | 0.114 | 0.122 |
| L | 0.43 | 0.83 | 0.017 | 0.033 |
| HE | 3.5 | 3.9 | 0.138 | 0.154 |

Soldering footprint

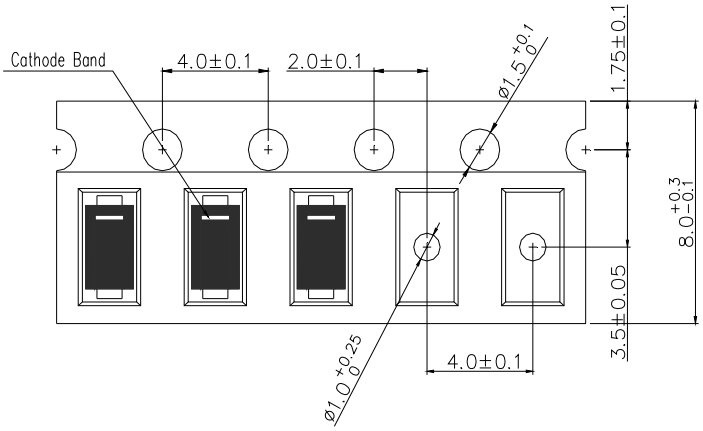



## Packing Information

**Packing quantities:**

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

**Tape & Reel Specification**



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