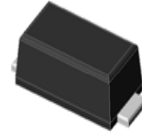


## Features

- Super Low VF Schottky barrier diodes
- 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°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



RoHS  
COMPLIANT



eSGA  
(SOD-123FL)

## Typical Applications

For use of fast swiching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

| Maximum Ratings (TA = 25 °C unless otherwise noted)                                |                      |               |      |      |       |      |
|--|----------------------|---------------|------|------|-------|------|
| Parameter  | Symbol               | FS32          | FS33 | FS34 | FS345 | Unit |
| Maximum repetitive peak reverse voltage  | VRRM                 | 20            | 30   | 40   | 45    | V    |
| Maximum RMS voltage  | VRMS                 | 14            | 21   | 28   | 31.5  | V    |
| Maximum DC blocking voltage  | VDC                  | 20            | 30   | 40   | 45    | V    |
| Maximum average forward rectified current  | IF(AV) <sup>1)</sup> | 3.0           |      |      |       | A    |
|  | IF(AV) <sup>2)</sup> | 2.0           |      |      |       |      |
| Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load | IFSM                 | 60            |      |      |       | A    |
| Operating junction temperature range   | T <sub>J</sub>       | - 55 to + 150 |      |      |       | °C   |
| Storage temperature range  | T <sub>STG</sub>     | - 55 to + 150 |      |      |       | °C   |

| Electrical Characteristics (TA = 25 °C unless otherwise noted) |                                   |                  |      |      |      |       |       |
|--|-----------------------------------|------------------|------|------|------|-------|-------|
| Parameter  | Test Conditions                   | Symbol           | FS32 | FS33 | FS34 | FS345 | Unit  |
| Maximum instantaneous forward voltage                          | IF=3A,TA=25°C                     | V <sub>F</sub>   | 0.51 |      |      |       | Volts |
| Maximum DC reverse current at rated DC blocking voltage        | TA=25°C                           | I <sub>R</sub>   | 200  |      |      |       | uA    |
|  | TA=125°C                          |                  | 30   |      |      |       | mA    |
| Typical junction capacitance                                   | 4.0 V, 1 MHz                      | C <sub>J</sub>   | 195  |      |      |       | pF    |
| Typical thermal resistance                                     | junction to mount <sup>1)</sup>   | R <sub>θJM</sub> | 30   |      |      |       | °C/W  |
|  | junction to ambient <sup>2)</sup> | R <sub>θJA</sub> | 100  |      |      |       |       |

Note:1),The thermal resistance from junction to mount,mounted on aluminum P.C.B with recommended copper pads

2),The thermal resistance from junction to ambient,mounted on P.C.B with 5x5mm copper pads,2 OZ,FR4 PCB

## Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

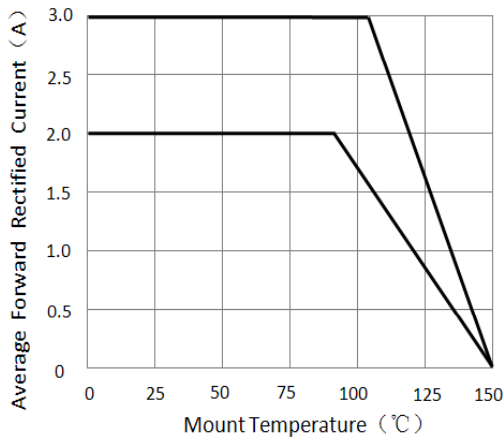


Figure 1. Forward Current Derating Curve

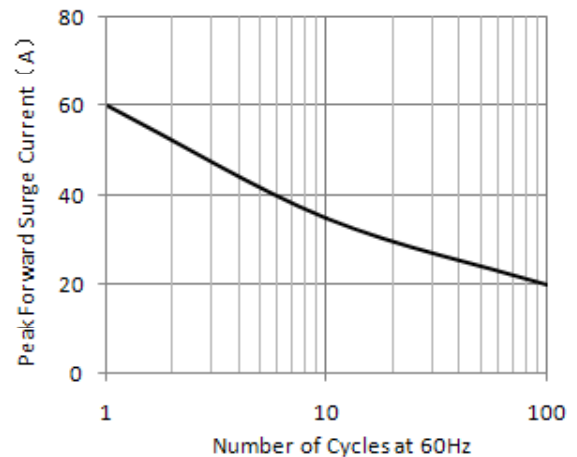


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

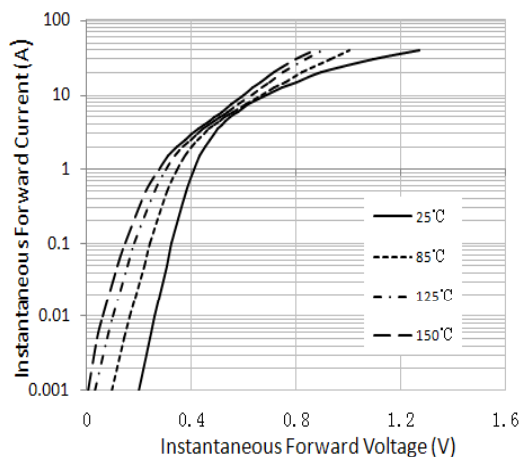


Figure 3. Typical Instantaneous Forward Characteristics

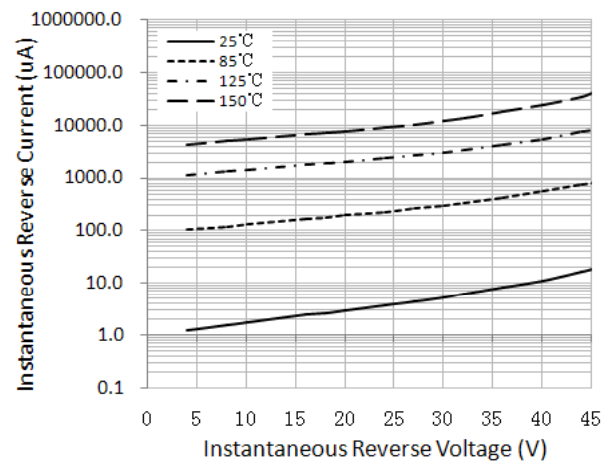


Figure 4. Typical Reverse Characteristics

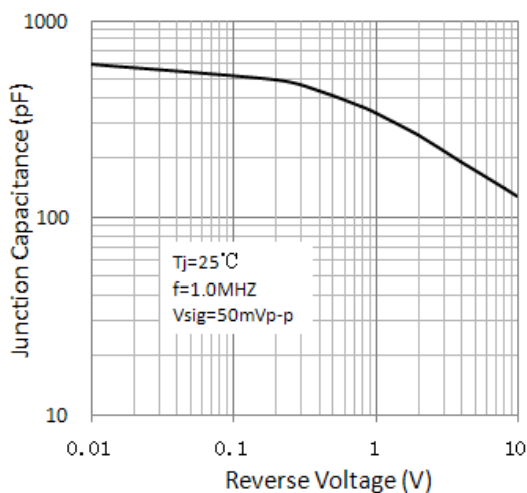
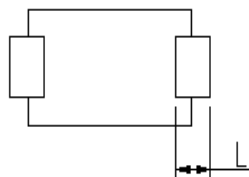
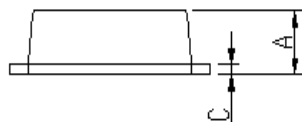
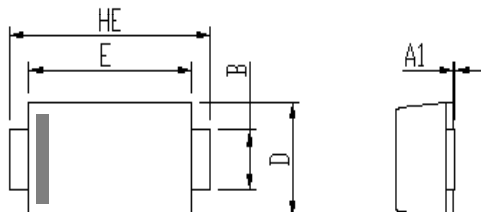


Figure 5. Typical Junction Capacitance

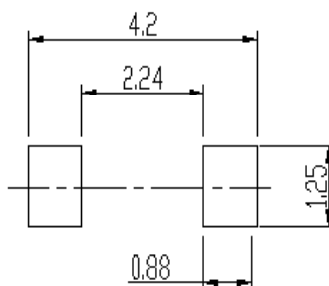
## Package Outline Dimensions

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

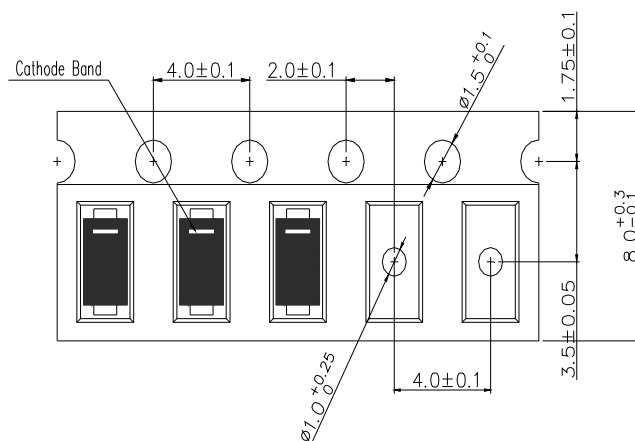


## Packing Information

**Packing quantities:**

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

**Tape & Reel Specification**





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