

Surface Mount Schottky Rectifier

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- AEC-Q101 qualified (Automotive grade with suffix "Q".)
- Exsemi technology

Typical Applications

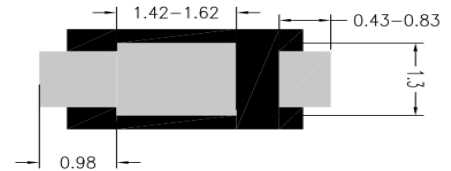
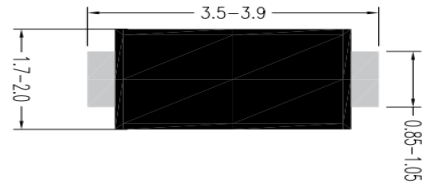
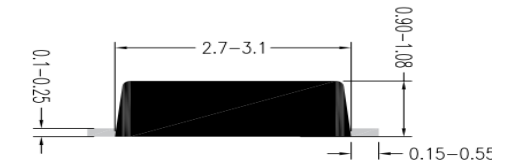
For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Date

- **Package:** SOD-123HE
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

SOD-123HE

Unit : inch(mm)



Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SSD32 HE | SSD33 HE | SSD34 HE | SSD35 HE | SSD36 HE | SSD38 HE | SSD310 HE | SSD315 HE | SSD320 HE | | |
|---|--------|------|-----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|--|--|
| Repetitive peak reverse voltage | VRRM | V | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | | |
| Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1) | IO | A | 3.0 | | | | | | | | | | |
| Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Tj=25°C | IFSM | A | 80 | | | | | | | | | | |
| Storage temperature | Tstg | °C | -55 ~+150 | | | | | | -55 ~+175 | | | | |
| Junction temperature | Tj | °C | -55 ~+150 | | | | | | -55 ~+175 | | | | |
| Typical Junction Capacitance measured at 1MHz and Applied on 4.0VD.C | Cj | pF | 165 | | | | | | | | | | |

Electrical Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | SSD32 HE | SSD33 HE | SSD34 HE | SSD35 HE | SSD36 HE | SSD38 HE | SSD310 HE | SSD315 HE | SSD320 HE | |
|--|--------|------|-----------------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|--|
| Maximum instantaneous forward voltage drop per diode | VF | V | IFM=3.0A | 0.55 | | | 0.70 | | 0.80 | | 0.95 | | |
| Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM | IRRM | uA | Ta=25°C | 5 | | | | | | 1 | | | |
| | | | Ta=100°C | 200 | | | | | | 100 | | | |

■ Thermal Characteristics (Ta=25°C Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | SSD32 HE | SSD33 HE | SSD34 HE | SSD35 HE | SSD36 HE | SSD38 HE | SSD310 HE | SSD315 HE | SSD320 HE |
|--------------------|--------|------|------------------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
| Thermal Resistance | RθJ-A | °C/W | 70 ¹⁾ | | | | | | | | |
| | RθJ-L | | 16 ¹⁾ | | | | | | | | |

Note:
 (1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

■ Characteristics (Typical)

