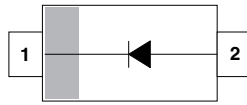
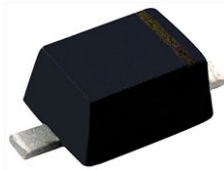


Small Signal Fast Switching Diode



1 = Cathode
2 = Anode

22611

FEATURES

- Silicon epitaxial planar diode
- Fast switching diodes
- Base P/N-G3 - green, commercial grade
- Material categorization:
For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

MARKING (example only)



22610

Bar = cathode marking
XY = type code

MECHANICAL DATA

Case: SOD-323 FL

Weight: approx. 4.5 mg

Packaging codes/options:

GS08/3K per 7" reel (8 mm tape), 18K/box

| PARTS TABLE | | | | |
|--------------|------------------|--------------|-----------------------|---------------|
| PART | ORDERING CODE | TYPE MARKING | INTERNAL CONSTRUCTION | REMARKS |
| 1N4148WSFL-G | 1N4148WSFL-G3-08 | AH | Single diode | Tape and reel |

| ABSOLUTE MAXIMUM RATINGS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified) | | | | |
|---|---|-------------|-------|------|
| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
| Reverse voltage | | V_R | 75 | V |
| Repetitive peak reverse voltage | | V_{RRM} | 100 | |
| Average rectified current half wave rectification with resistive load ⁽¹⁾ | $f \geq 50\text{ Hz}$ | $I_{F(AV)}$ | 150 | mA |
| Surge forward current | $t < 1\text{ s}$ and $T_j = 25\text{ }^{\circ}\text{C}$ | I_{FSM} | 350 | |
| Power dissipation ⁽¹⁾ | | P_{tot} | 250 | mW |

| THERMAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified) | | | | |
|--|----------------|------------|---------------|--------------------|
| PARAMETER | TEST CONDITION | SYMBOL | VALUE | UNIT |
| Thermal resistance junction to ambient air ⁽¹⁾ | | R_{thJA} | 500 | K/W |
| Junction temperature | | T_j | 150 | $^{\circ}\text{C}$ |
| Storage temperature range | | T_{stg} | - 65 to + 150 | |
| Operating temperature range | | T_{op} | - 55 to + 150 | |

Note

⁽¹⁾ Device mounted on FR-4 PCB, landing pad according to footprint recommendation in datasheet drawing



ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

| PARAMETER | TEST CONDITION | SYMBOL | MIN. | TYP. | MAX. | UNIT |
|-----------------------|--|----------|------|------|------|---------------|
| Forward voltage | $I_F = 10\text{ mA}$ | V_F | | | 1000 | mV |
| | $I_F = 100\text{ mA}$ | V_F | | | 1200 | |
| Leakage current | $V_R = 20\text{ V}$ | I_R | | | 25 | μA |
| | $V_R = 75\text{ V}$ | I_R | | | 5 | |
| | $V_R = 100\text{ V}$ | I_R | | | 100 | |
| | $V_R = 20\text{ V}, T_j = 150\text{ }^{\circ}\text{C}$ | I_R | | | 50 | |
| Diode capacitance | $V_F = V_R = 0\text{ V}$ | C_D | | | 4 | pF |
| Reverse recovery time | $I_F = 10\text{ mA}, I_R = 1\text{ mA}, V_R = 6\text{ V}, R_L = 100\text{ }\Omega$ | t_{rr} | | | 4 | ns |

TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

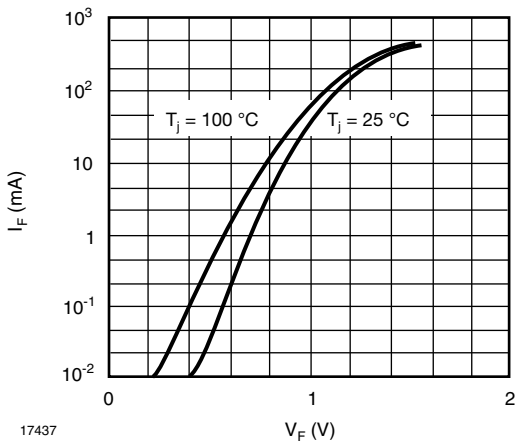


Fig. 1 - Forward Characteristics

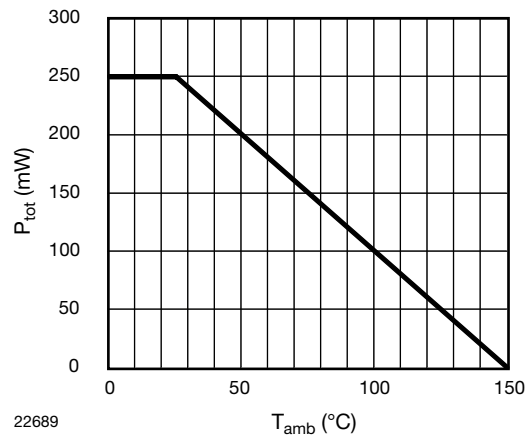


Fig. 3 - Admissible Power Dissipation vs. Ambient Temperature

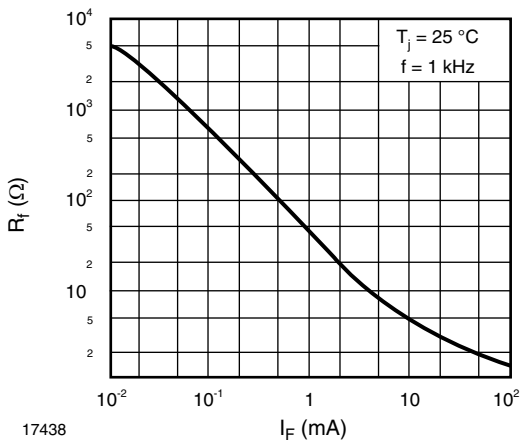


Fig. 2 - Dynamic Forward Resistance vs. Forward Current

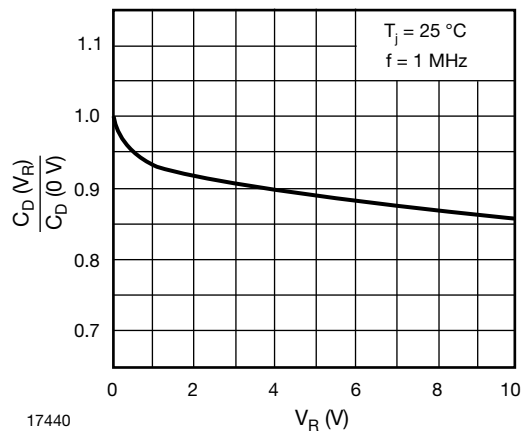


Fig. 4 - Relative Capacitance vs. Reverse Voltage

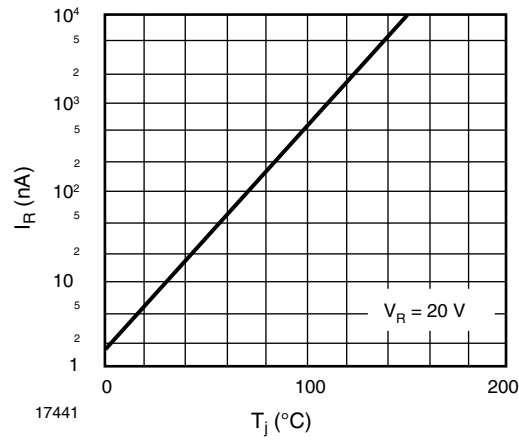


Fig. 5 - Leakage Current vs. Junction Temperature

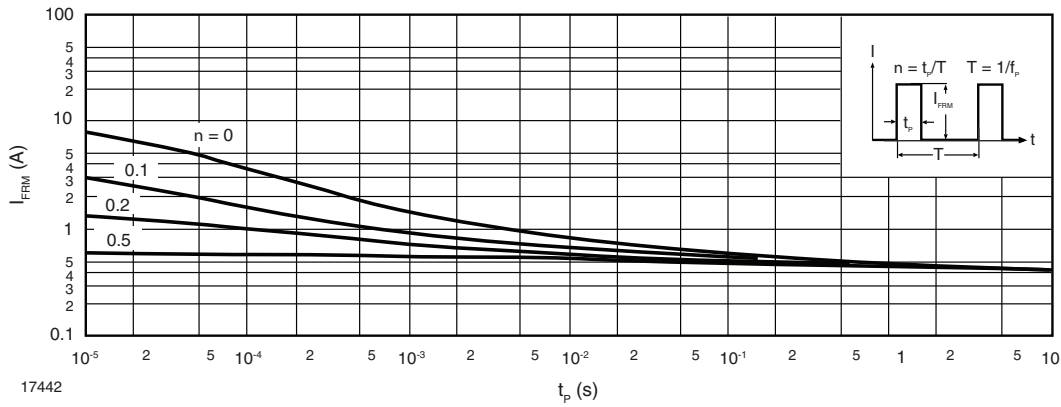
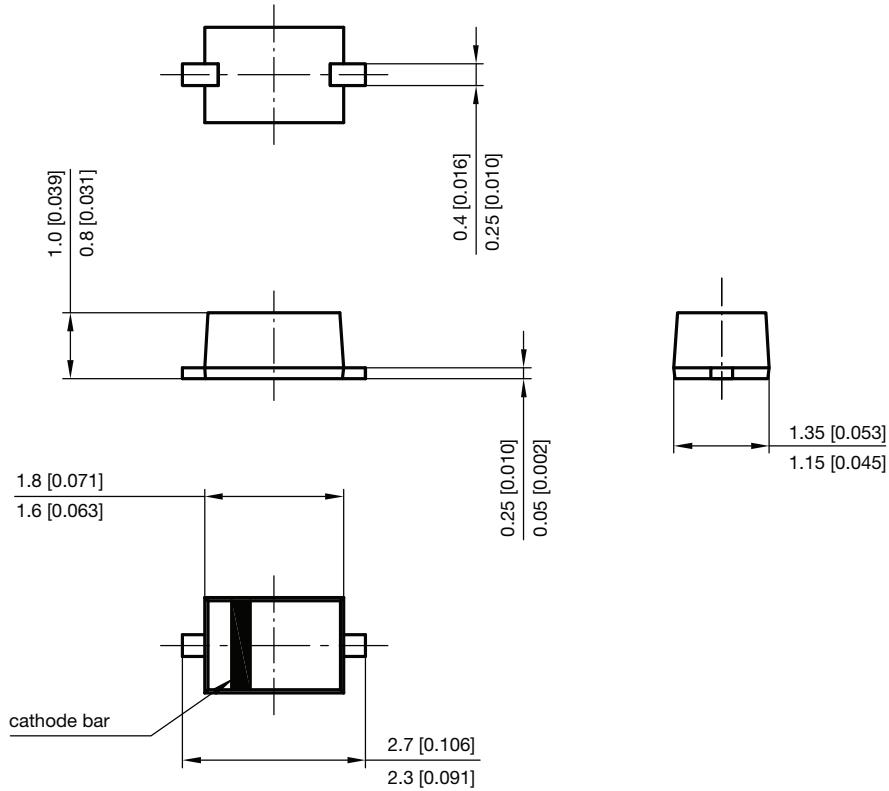


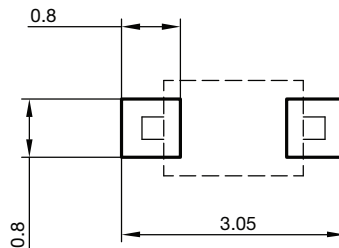
Fig. 6 - Admissible Repetitive Peak Forward Current vs. Pulse Duration



PACKAGE DIMENSIONS in millimeters (inches): SOD-323FL



foot print recommendation for reflow soldering:



Document no.:S8-V-3910.04-001 (4)

Created - Date: 07.Feb. 2013

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