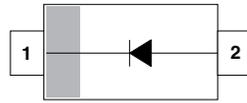


## Small Signal Fast Switching Diode



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](http://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 <sup>(1)</sup>	$f \geq 50\text{ Hz}$	$I_{F(AV)}$	150	mA
Surge forward current	$t < 1\text{ s}$ and $T_j = 25\text{ }^{\circ}\text{C}$	$I_{FSM}$	350	
Power dissipation <sup>(1)</sup>		$P_{tot}$	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 <sup>(1)</sup>		$R_{thJA}$	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

<sup>(1)</sup> 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	$\mu\text{A}$
	$V_R = 75\text{ V}$	$I_R$			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)

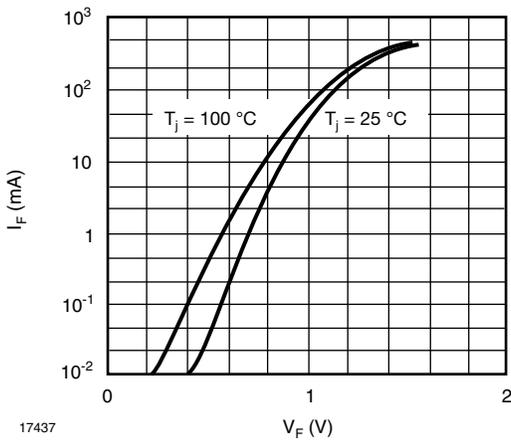


Fig. 1 - Forward Characteristics

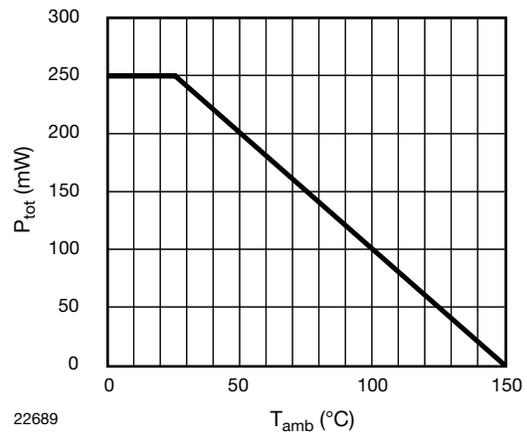


Fig. 3 - Admissible Power Dissipation vs. Ambient Temperature

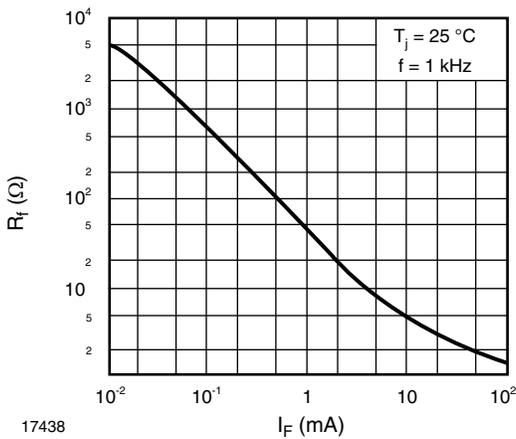


Fig. 2 - Dynamic Forward Resistance vs. Forward Current

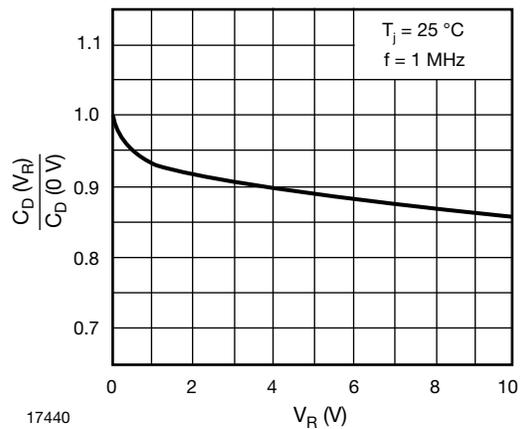


Fig. 4 - Relative Capacitance vs. Reverse Voltage

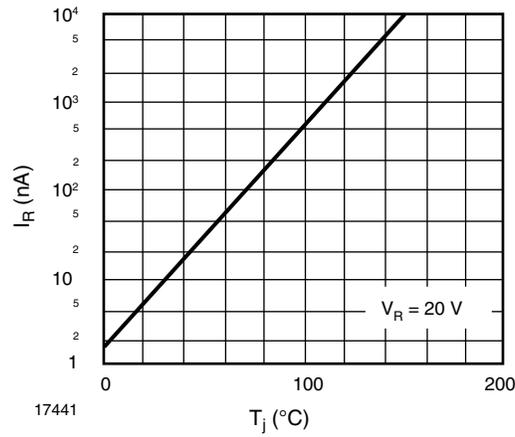


Fig. 5 - Leakage Current vs. Junction Temperature

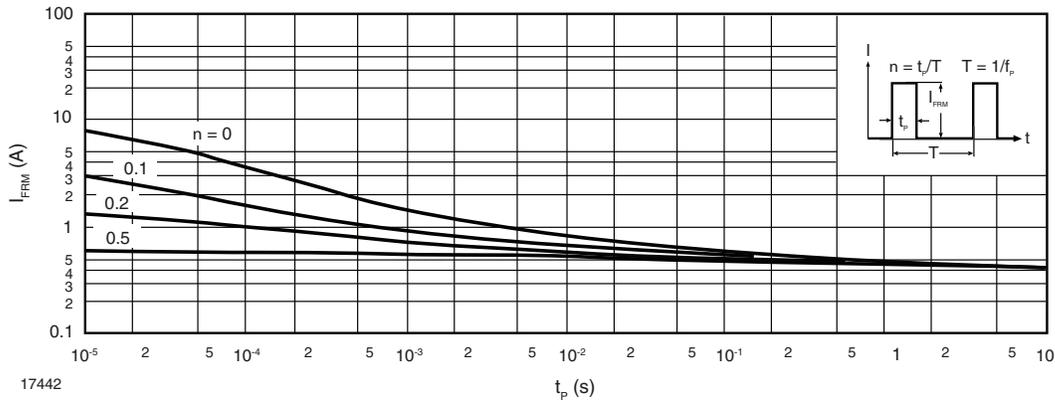
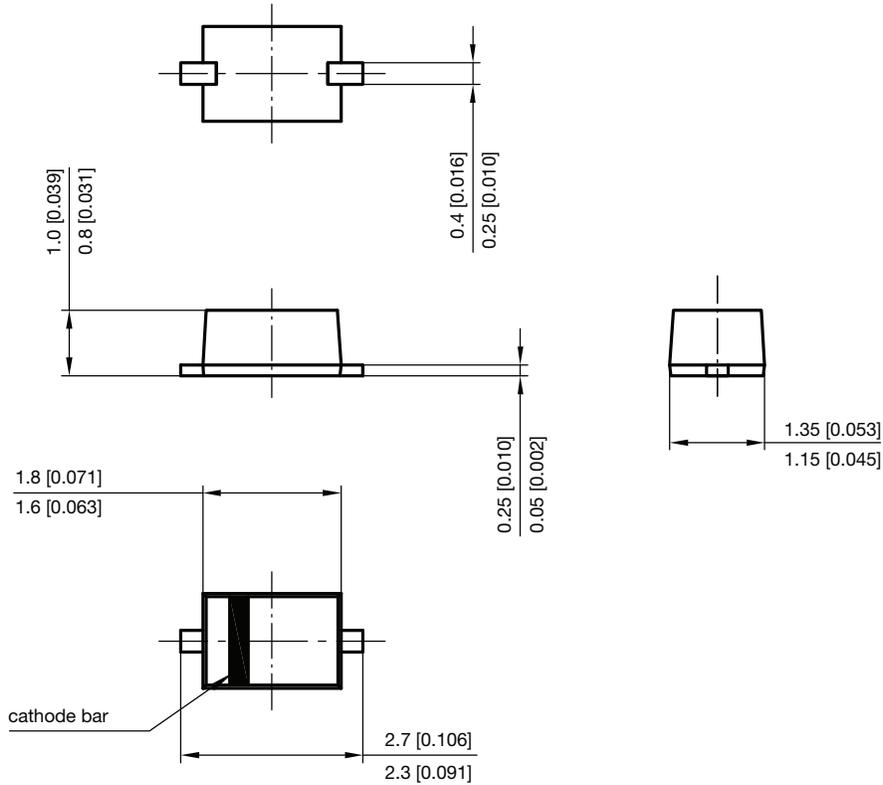


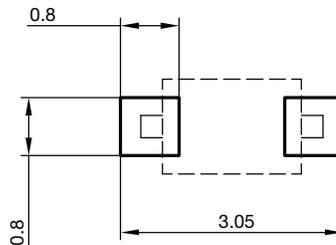
Fig. 6 - Admissible Repetitive Peak Forward Current vs. Pulse Duration



## 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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