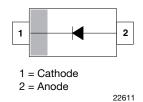


# **Small Signal Fast Switching Diode**





### 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

#### **FEATURES**

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





COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

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

<b>ABSOLUTE MAXIMUM RATINGS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL	SYMBOL VALUE		
Reverse voltage		V <sub>R</sub>	75	.,	
Repetitive peak reverse voltage		V <sub>RRM</sub>	100	V	
Average rectified current half wave rectification with resistive load (1)	f ≥ 50 Hz		150	mA	
Surge forward current	t < 1 s and T <sub>j</sub> = 25 °C	I <sub>FSM</sub>	350	1	
Power dissipation (1)		P <sub>tot</sub>	250	mW	

THERMAL CHARACTERISTICS (T <sub>amb</sub> = 25 °C, unless otherwise specified)					
PARAMETER	TEST CONDITION	SYMBOL VALUE		UNIT	
Thermal resistance junction to ambient air (1)		R <sub>thJA</sub>	500	K/W	
Junction temperature		Tj	150		
Storage temperature range		T <sub>stg</sub>	- 65 to + 150	°C	
Operating temperature range		T <sub>op</sub>	- 55 to + 150		

#### Note

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

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>amb</sub> = 25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITION	SYMBOL	MIN.	TYP.	MAX.	UNIT
Forward voltage	I <sub>F</sub> = 10 mA	V <sub>F</sub>			1000	mV
	I <sub>F</sub> = 100 mA	V <sub>F</sub>			1200	
Leakage current	V <sub>R</sub> = 20 V	I <sub>R</sub>			25	nA
	V <sub>R</sub> = 75 V	I <sub>R</sub>			5	μА
	V <sub>R</sub> = 100 V	I <sub>R</sub>			100	
	V <sub>R</sub> = 20 V, T <sub>j</sub> = 150 °C	I <sub>R</sub>			50	
Diode capacitance	$V_F = V_R = 0 V$	$C_D$			4	pF
Reverse recovery time	$I_F = 10 \text{ mA, } i_R = 1 \text{ mA, } V_R = 6 \text{ V,}$ $R_L = 100 \ \Omega$	t <sub>rr</sub>			4	ns

### TYPICAL CHARACTERISTICS (T<sub>amb</sub> = 25 °C, unless otherwise specified)

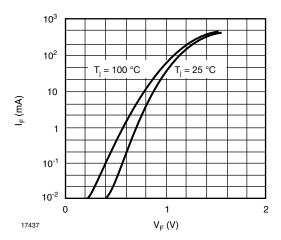


Fig. 1 - Forward Characteristics

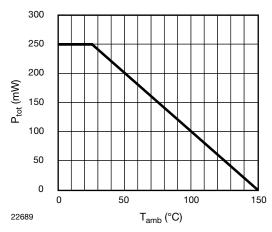


Fig. 3 - Admissible Power Dissipation vs. Ambient Temperature

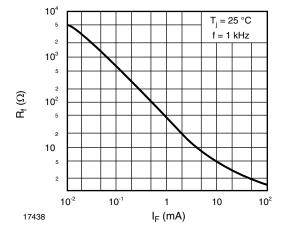


Fig. 2 - Dynamic Forward Resistance vs. Forward Current

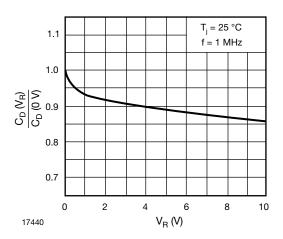


Fig. 4 - Relative Capacitance vs. Reverse Voltage

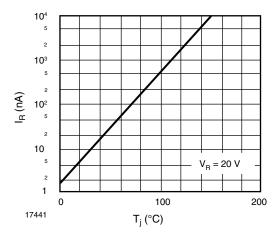


Fig. 5 - Leakage Current vs. Junction Temperature

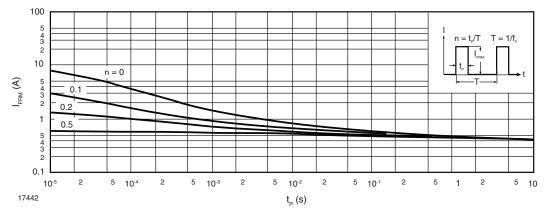
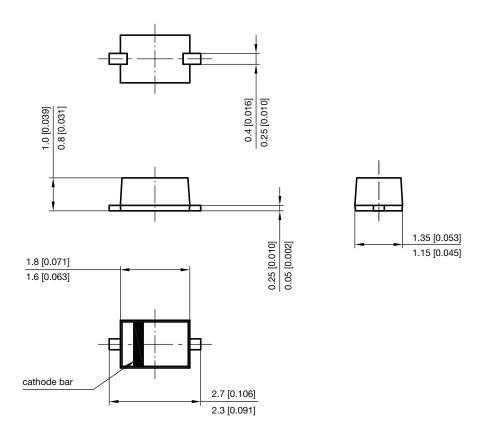
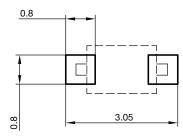


Fig. 6 - Admissible Repetitive Peak Forward Current vs. Pulse Duration

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



foot print recommendation for reflow soldering:



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