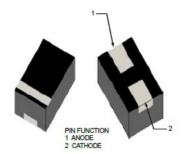
GaAs Schottky Diode

Features

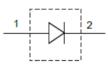
- Small Footprint, only 50 x 30 mils.
- Very Low Parasitic Package Inductance, Series Resistance, and Low Package Capacitance
- RoHS* Compliant

Description

The SMGS11 is a GaAs Schottky diode in a molded plastic DFN package. It is designed for broadband detector and single diode mixer. It is in single configuration. It has a high cutoff frequency and can be used beyond 26.5 GHz.



Case 0503 - Molded Plastic DFN Package



	Parameter	Test Conditions	Units	Min.	Тур.	Max.
	Forward Voltage (V_F)	I _R = 1 mA	V	620	—	760
	Total Capacitance (C_T)	V _R = 0 V, 1 MHz V = 0 V, >4 GHz	pF	_	0.10 0.08	0.13 0.10
	Series Resistance (R _s)	I _F = 5 mA	Ω	—	_	7
	Video Resistance (R _V)	I _F = 40 μA	Ω		1250	_
	Tangential Signal Sensitivity (T _{SS})	NF -3 dB, 10 GHz	dBm	—	-57	—
	Voltage Sensitivity (y)	P _{IN} = -30 dBm, Video BW = 500 KHz, 10 GHz	mV/mW		8000	_

Electrical Specifications: T_A = +25°C

Absolute Maximum Ratings

Parameter	Absolute Maximum		
Input Power	20 dBm		
Reverse Voltage	5 V		
Forward Current	20 mA		
Junction Temperature	+175°C		
Storage Temperature	-65°C to +150°C		
Solder Temperature	+260°C, peak for 5 sec, per JEDEC J-STD-20C		

Handling Procedures

Please observe the following precautions to avoid damage:

Static Sensitivity

These electronic devices are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these (HBM) Class 0 devices.

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

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Rev. V1

SMGS11

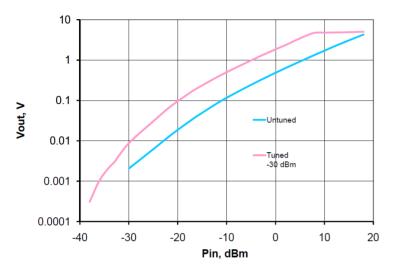


GaAs Schottky Diode

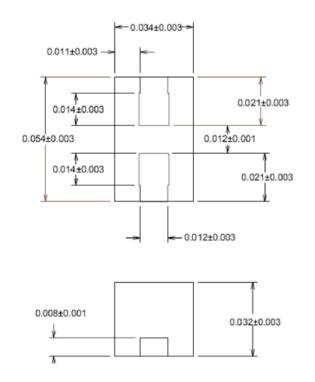
Rev. V1

Typical Dynamic Transfer Characteristics: R_L = 10 m Ω , F_0 = 10 GHz

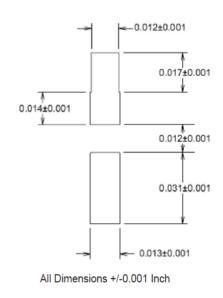
Output Voltage vs. Input Power



Lead-Free 0503 Plastic DFN Package



Soldering Footprint



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