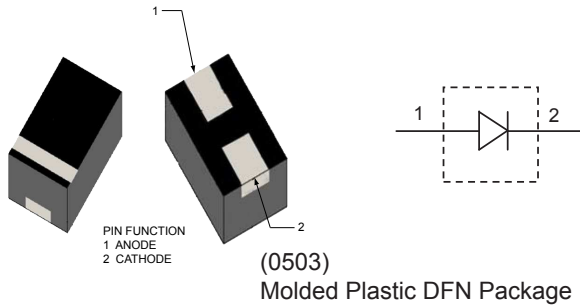


SMGS11

GaAs Schottky Diodes



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.

Features

- Small footprint, only 50 X 30 mils.
- Very low parasitic inductance, series resistance, and low parasitic capacitance.
- Silicon nitride passivation for high reliability.

Maximum Ratings

RATING	LIMITS	UNITS
Pin	20 (at 25 °C)	dBm
V_R	5	V
I_F	20	mA
T_J	-65 to +175	°C
T_{STG}	-65 to +150	°C
T_{SOLDER}	260 °C peak 5 sec per JEDEC J-STD-20C.	
ESD	Class 0 (Human Body Model)	

Electrical Specifications, $T_c = +25\text{ °C}$

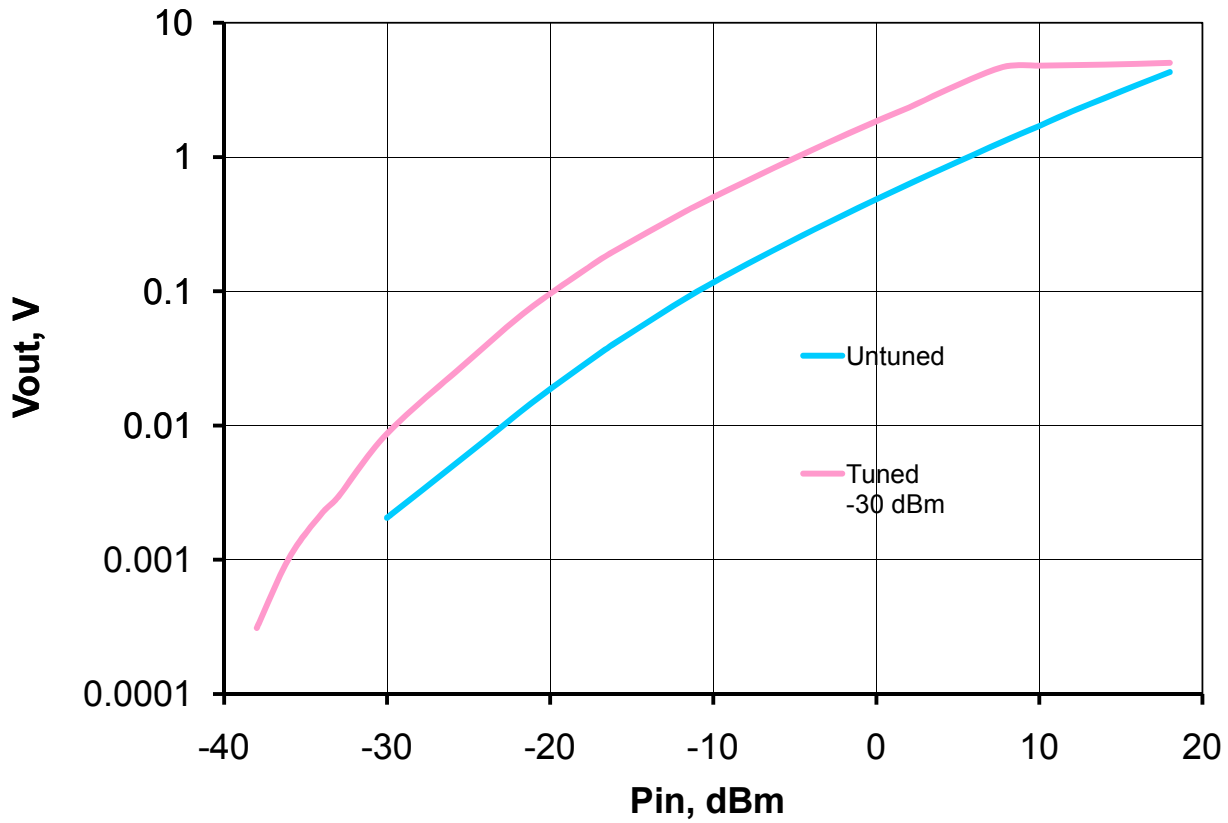
SYMBOL	TEST CONDITIONS			MIN	TYPICAL	MAX	UNITS
V_F	$I_R = 1\text{ mA}$			620	-	760	V
C_T	$V_R = 0\text{ V}$		$F = 1\text{ MHz}$		0.10	0.13	pF
R_S	$I_F = 5\text{ mA}$			-	-	7.0	Ω
C_T	$V = 0$		$F = >4\text{ GHz}$	-	0.08	0.1	pF
R_v	$I_F = 40\ \mu\text{A}$				1250		Ω
Tss	NF -3 dB		$F = 10\text{ GHz}$		-57		dBm
y	PIN = -30 dBm	Video BW = 500 KHz	$F = 10\text{ GHz}$		8000		mV/mW



Transfer Curve RF to DC

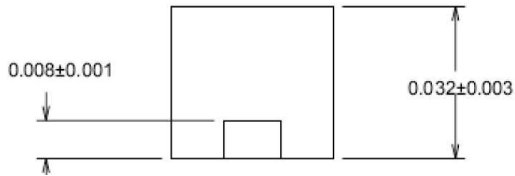
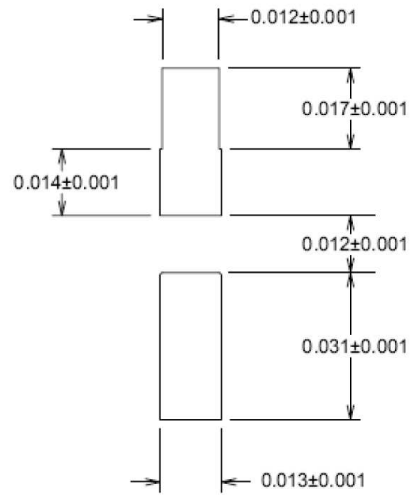
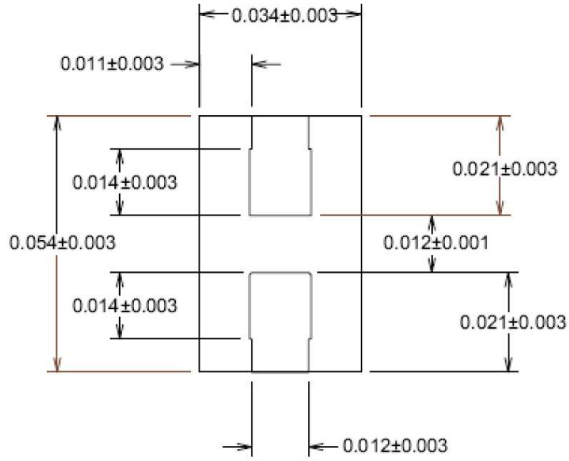
Vout vs Pin

$R_L = 10\text{ M}\Omega, 40\ \mu\text{A}$



Package Outline

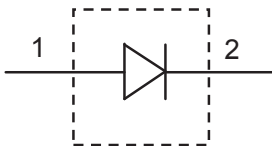
0503



SOLDERING FOOTPRINT

All Dimensions +/-0.001 Inch

Electrical Schematic



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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.