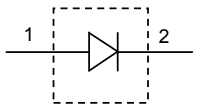
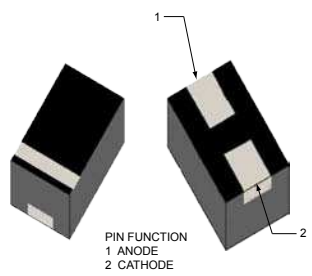


SMS202

Silicon Schottky Diodes



(0503)
Molded Plastic DFN Package

Description

The SMS202 is a silicon Schottky diode in a molded plastic DFN package. It is designed for a broadband zero bias detector. It can be used up to 18 GHz and power detection up to 10 dBm.

Features

- Small footprint, only 50 X 30 mils.
- Simplest broadband detector as no dc bias required.
- Very low barrier height, good sensitivity, -54 dBm typical. Also low flick noise.
- Very low parasitic package inductance and low package capacitance.
- Cost effective choice for high volume production.

Maximum Ratings

RATING	LIMITS	UNITS
V_R	1.0	V
I_F	20	mA
P_{DISS}	100 de-rated to zero at 150°C	mW
T_J	+175	°C
T_{STG}	-65 to +150	°C
T_{SOLDER}	+260 °C per JEDEC J-STD-20C.	
ESD	Class 0 (Human Body Model)	

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

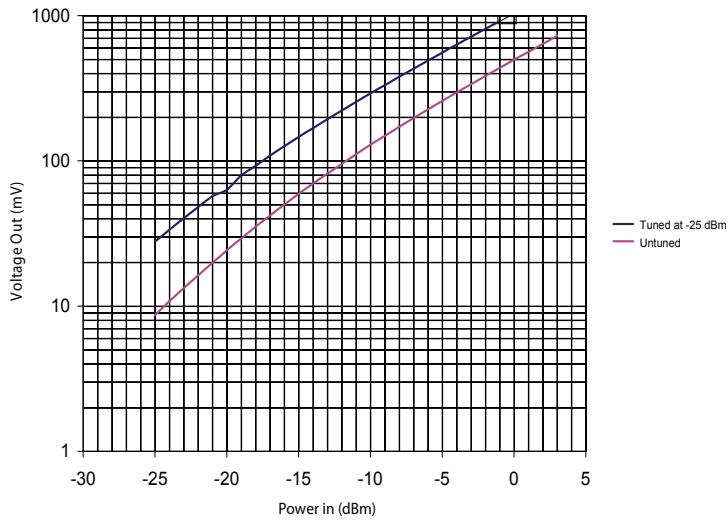
SYMBOL	TEST CONDITIONS			MIN	TYPICAL	MAX	UNITS
V_{BR}	$I_R = 100\ \mu\text{A}$			1.0	-	-	V
V_F	$I_F = 100\ \mu\text{A}$			60	80	120	mV
C_T	$V = 0\ \text{V}$	F = 1 MHz		-	0.17	0.20	pF
Rv	Zero Bias			2000	4000	8000	Ω
Tss	NF -3 dB	F = 10 GHz			-54		dBm
y	PIN = -30 dBm	Video BW = 500 KHz	F = 10 GHz		8000		mV/mW



Typical RF Performance at $T_A = 25\text{ }^\circ\text{C}$, $Z_o = 50\ \Omega$, Small Signal

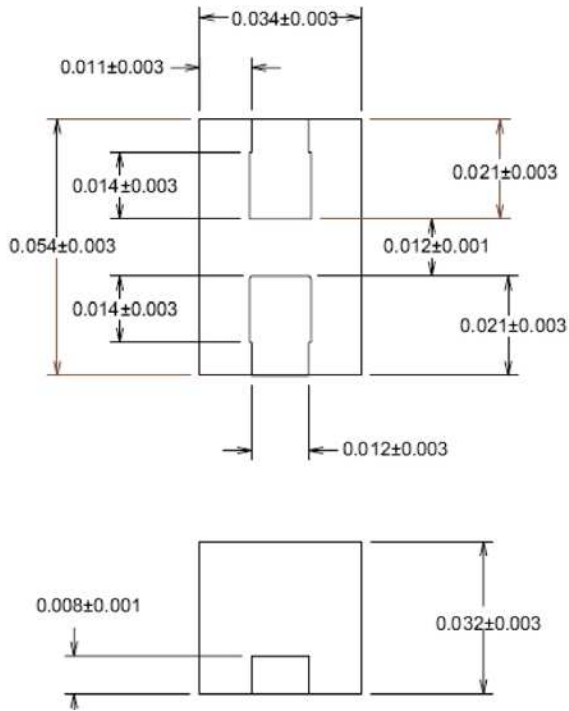
Typical Dynamic Transfer Characteristics

($R_L = 10\ \text{M}\Omega$, $F_o = 10\ \text{GHz}$)

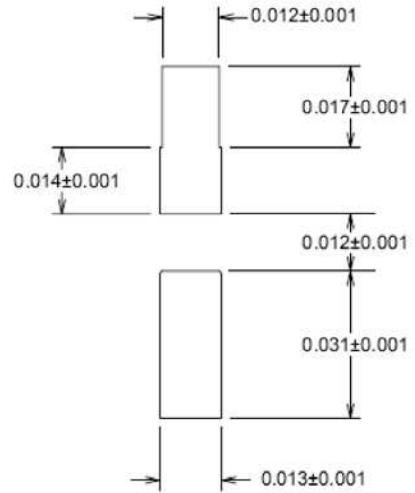


Package Outline (0503)

0503

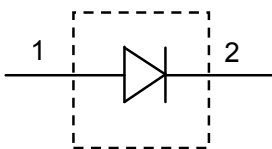


PCB Layout



SOLDERING FOOTPRINT

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.