

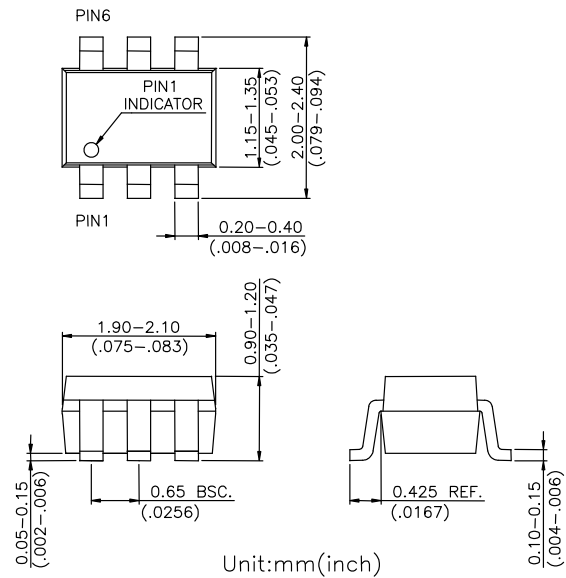
Features

- **Low Insertion Loss:** 0.4 dB @ 2.5 GHz
- **Isolation:** 25 dB @ 2.5 GHz
- **Low DC Power Consumption**
- **Low Cost SOT-363 Plastic Package**

Description

The HWS314 is a GaAs SPDT switch operating at DC-2.5 GHz in a low cost SOT-363 plastic package. The HWS314 features low insertion loss with very low DC power consumption. This switch can be used in IEEE 802.11b/g WLAN systems for combination of transmit/receive and antenna diversity functions.

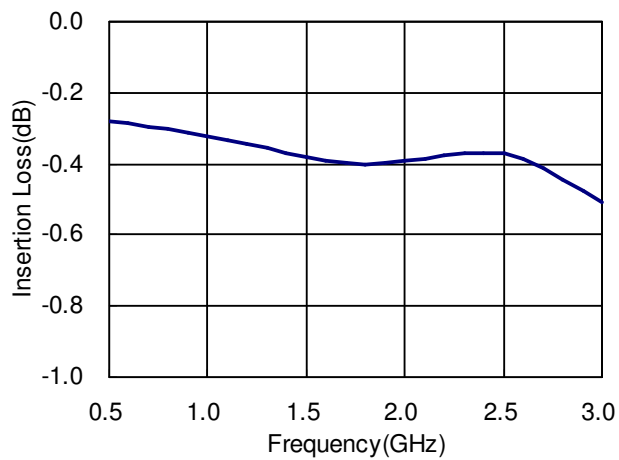
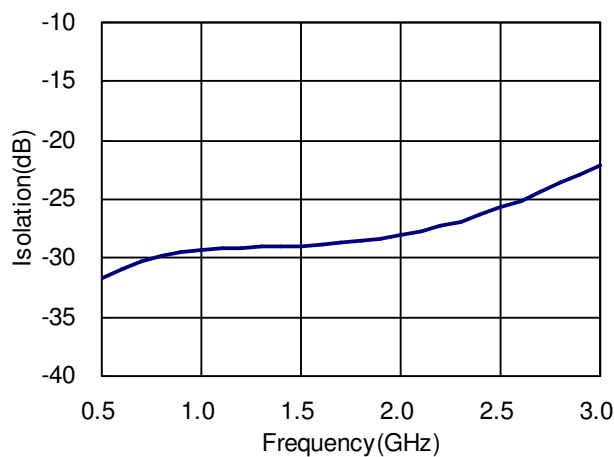
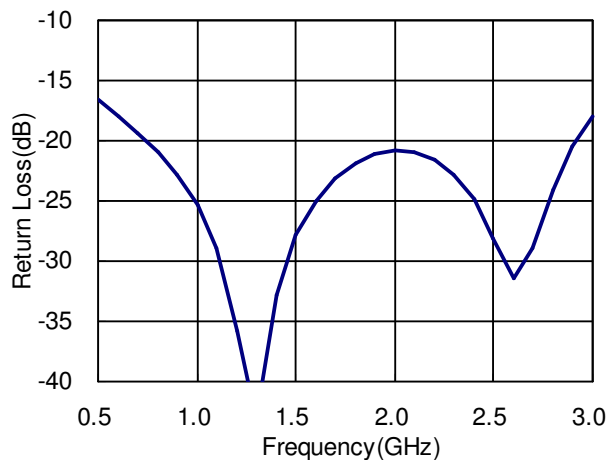
SOT-363



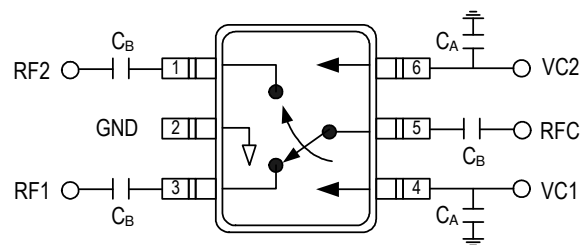
Electrical Specifications at 25 °C with 0, +3V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	DC-2.5 GHz		0.4	0.6	dB
Isolation	DC-2.5 GHz	21	25		dB
Return Loss	DC-2.5 GHz		20		dB
Input Power for One dB Compression	0.5-2.5 GHz @ 0/+3V @ 0/+5V		30 34		dBm dBm
Switching Time			20		ns
Control Current			5	100	uA

Note: All measurements made in a 50 ohm system with 0/+3V control voltages, unless otherwise specified.

Typical Performance Data @ +25°C
Insertion Loss vs Frequency

Isolation vs Frequency

Return Loss vs Frequency

Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power 0.5-2.5 GHz	+34 dBm
Control Voltage	+6V
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C

Pin Out (Top View)


DC blocking capacitors C_B are required on all RF ports.
 $C_B=C_A=51\text{pF}$ for operating frequency $> 500\text{MHz}$.

Logic Table for Switch On-Path

VC1	VC2	RFC-RF1	RFC-RF2
1	0	Isolation	Insertion Loss
0	1	Insertion Loss	Isolation

'1' = +3V to +5V
 '0' = 0V to +0.2V