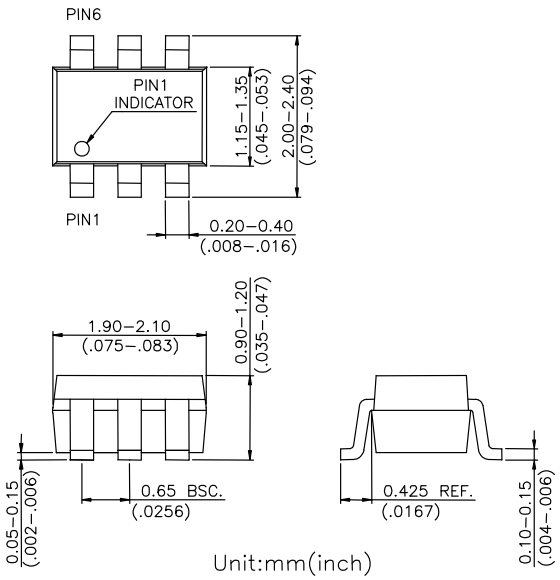
Features

- **Low Insertion Loss:** 0.4 dB @ 2.5 GHz
- **Isolation:** 25 dB @ 2.5 GHz
- **Low DC Power Consumption**
- **Low Cost SOT-363 Plastic Lead (Pb) Free Package**
- **Lead Free and RoHS (Restrict of Hazardous Substances) Compliant Version of HWS314**

SOT-363



Description

The HWS408 is a GaAs SPDT switch operating at DC-3 GHz in a low cost SOT-363 plastic lead (Pb) free package. The HWS408 features low insertion loss with very low DC power consumption. This switch can be used in many wireless digital communication systems like IEEE 802.11b/g WLAN and Bluetooth for transmit/receive selection or antenna diversity function.

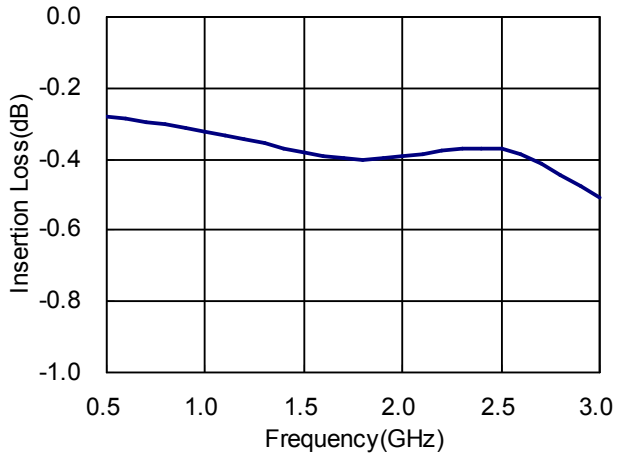
Electrical Specifications at 25°C with 0, +3V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	DC-2.5 GHz 2.5-3.0 GHz		0.4 0.5	0.6	dB dB
Isolation	DC-2.5 GHz 2.5-3.0 GHz	21	25 23		dB dB
Return Loss	DC-3.0 GHz		20		dB
Input Power for One dB Compression	0.5-3.0 GHz @ 0/+3V @ 0/+5V		 30 34		 dBm dBm
Switching Time			20		ns
Control Current			5	100	uA

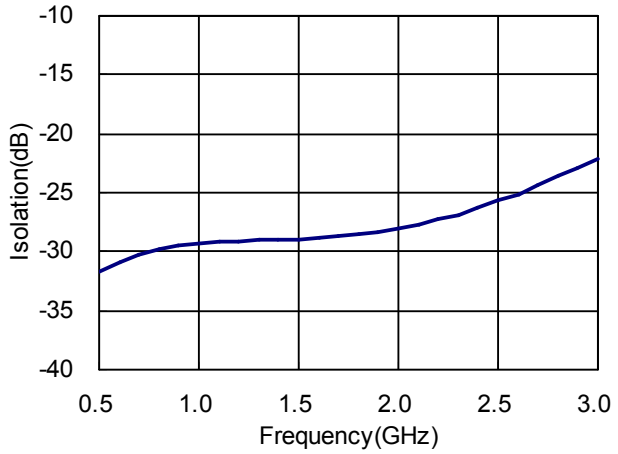
Note: All measurements made in a 50 ohm system with 0/+3V control voltages, unless otherwise specified.

Typical Performance Data @ +25°C

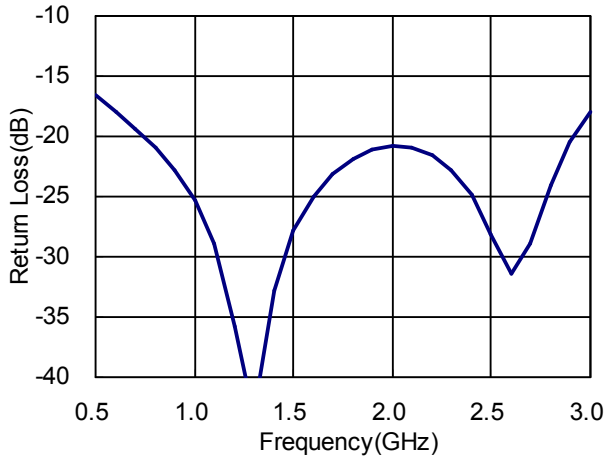
Insertion Loss vs Frequency



Isolation vs Frequency



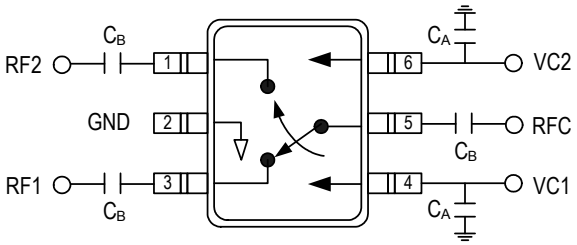
Return Loss vs Frequency



Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power 0.5-2.5 GHz	+34 dBm
Control Voltage	+6V
Operating Temperatur	-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=51pF for operating frequency > 500MHz.

Logic Table for Switch On-Path

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

'1' = +2.7V to +5V
'0' = 0V to +0.2V