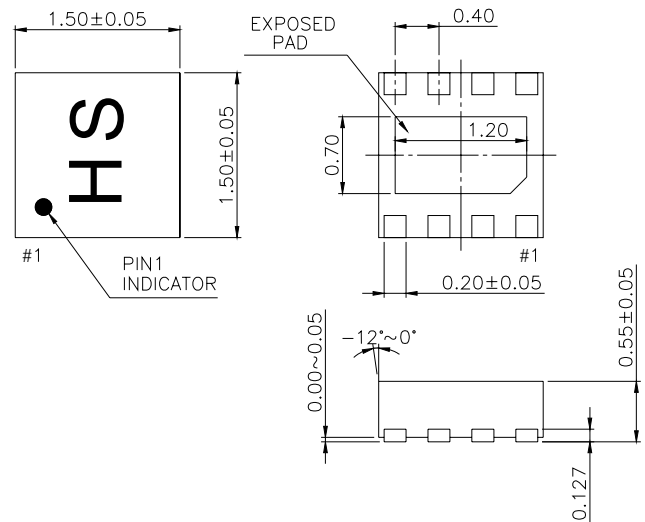


Features

- **Low Insertion Loss:** 0.42dB @ 1.0GHz
0.55dB @ 2.5GHz
- **Isolation:** 29dB @ 1.0GHz
21dB @ 2.5GHz
- **Low DC Power Consumption**
- **Miniature XSON8L (1.5x1.5x0.55 mm)**
Using Lead (Pb) free materials with RoHS compliant
- **PHEMT process**

XSON8L (1.5x1.5x0.55 mm)



Description

The HWS534 is a GaAs SP3T switch operating at 0.5-3.0 GHz in a low cost miniature XSON8L (1.5x1.5x0.55 mm) plastic lead (Pb) free package. The HWS534 features low insertion loss with very low DC power consumption. This switch can be used in wireless applications for selection of Bluetooth and IEEE 802.11 b/g/n transmit/receive functions.

Absolute Maximum Ratings

Item	Ratings
Control voltage	+6V (+25°C)
Input power max	+32dBm (+25°C)
Operating temperature range	-35 to +85°C
Storage temperature range	-65 to +150°C

Logic Table for Switch

VC1	VC2	VC3	RFC-RF1	RFC-RF2	RFC-RF3
1	0	0	On	Off	Off
0	1	0	Off	On	Off
0	0	1	Off	Off	On

'1' = +2.0V to +5V

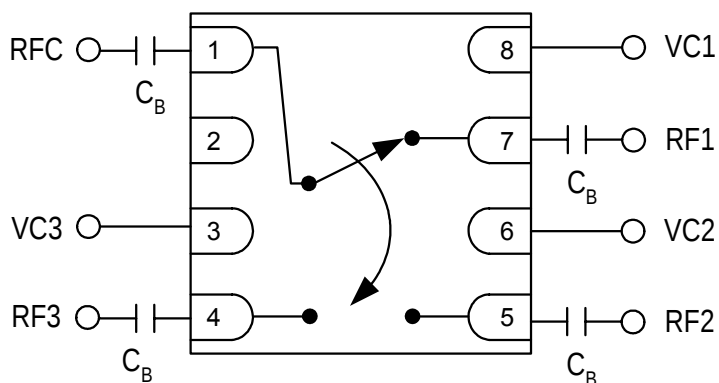
'0' = 0V to +0.2V

Electrical Specifications at 25°C with 0, +2.7V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	0.5-1.0 GHz		0.42	0.55	dB
	1.0-2.0 GHz		0.50	0.60	dB
	2.0-2.5 GHz		0.55	0.70	dB
Isolation	0.5-1.0 GHz	27	29		dB
	1.0-2.0 GHz	21	23		dB
	2.0-2.5 GHz	18	21		dB
Return Loss	0.5-3.0 GHz		15		dB
Input Power for 0.2dB Compression	2.5GHz @0/+2.7V		28		dBm
Switching Time	10% to 90%, 90% to 10% RF		150		nsec
Control Current			0.5	10	uA

Note: Electrical characteristics are measured with all RF ports terminated in 50Ω and recommended circuit.

Pin Out (Top View)

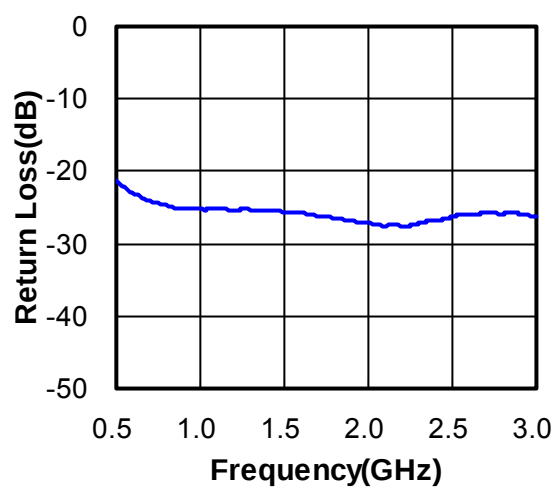


Note:

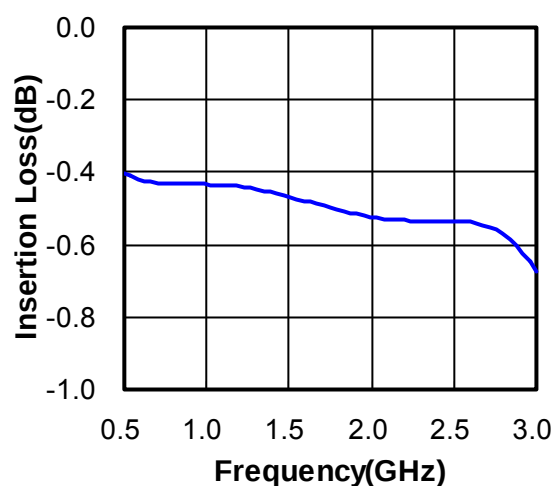
1. External blocking capacitors on all RF ports.
2. DC blocking capacitors are 47pF.

Typical Performance Data with 47pF Capacitors @+25°C

Return Loss vs. Frequency



Insertion Loss vs. Frequency



Isolation vs. Frequency

