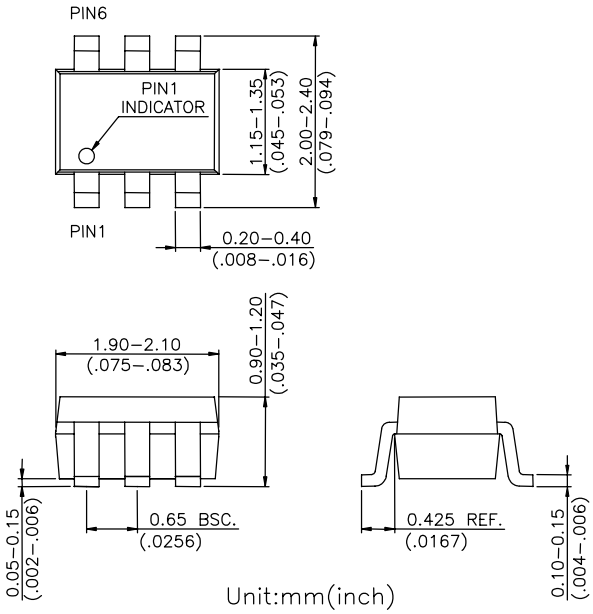
Features

- **Low Insertion Loss:** 0.5 dB @ 2.5 GHz
  0.9 dB @ 5.8 GHz
- **Isolation:** 26 dB @ 2.5 GHz
  17 dB @ 5.8 GHz
- **Low DC Power Consumption**
- **Low Cost SOT-363 Plastic Lead (Pb) Free Package, RoHS Compliant**

SOT-363



Description

The HWS426 is a GaAs SPDT switch operating at DC-6 GHz in a low cost SOT-363 plastic lead (Pb) free package. The HWS426 features low insertion loss with very low DC power consumption. This switch can be used in IEEE 802.11a/b/g WLAN systems for transmit/receive selection or antenna diversity function.

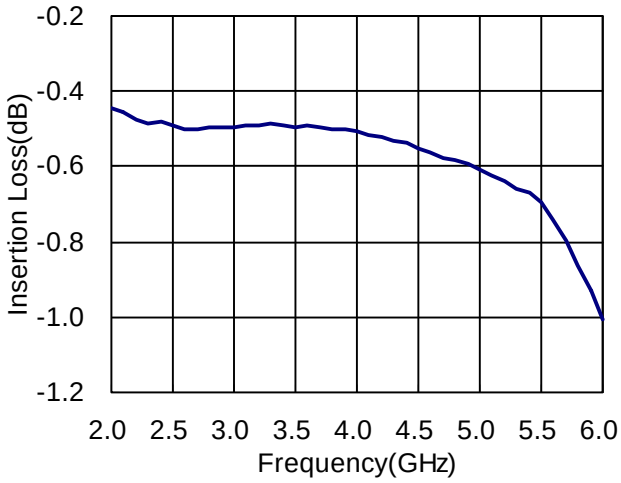
Electrical Specifications at 25°C with 0, +3V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	0.1-6.0 GHz 2.4-2.5 GHz 4.9-5.8 GHz		1.0 0.5 0.9	 0.7 1.1	dB dB dB
Isolation 1 (RF1-RF2)	0.1-6.0 GHz 2.4-2.5 GHz 4.9-5.8 GHz	 21 15	17 26 18		dB dB dB
Isolation 2 (RFC-RF1, RFC-RF2)	0.1-6.0 GHz 2.4-2.5 GHz 4.9-5.8 GHz	 21 14	16 26 17		dB dB dB
Return Loss	0.1-6.0 GHz		20		dB
Input Power for 0.1 dB Compression	2.0-6.0 GHz		30		dBm
Input Power for One dB Compression	2.0-6.0 GHz		33		dBm
Switching Time			20		ns
Control Current			10	100	uA

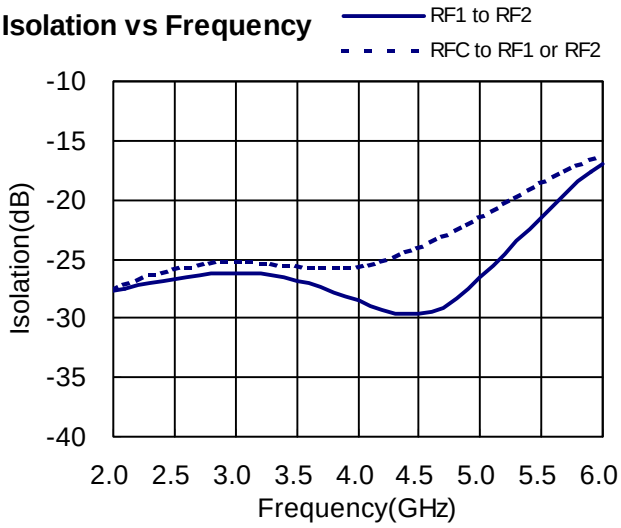
Note: All measurements made in a 50 ohm system with 0/+3V control voltages, unless otherwise specified.

Typical Performance Data @ +25°C

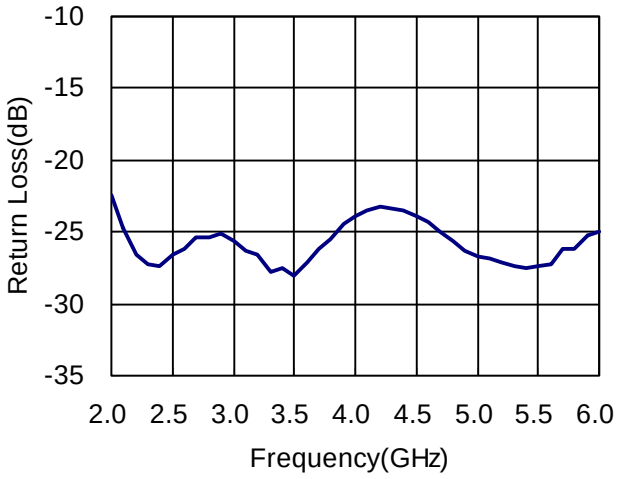
Insertion Loss vs Frequency



Isolation vs Frequency



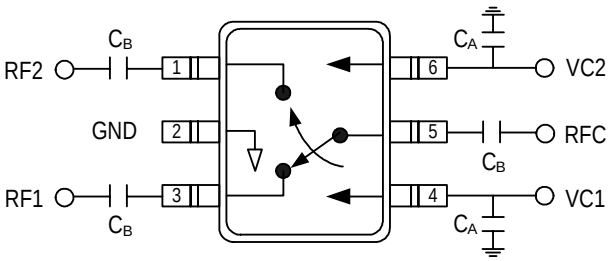
Return Loss vs Frequency



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 = 8pF and by-pass capacitors C_A=8pF are required on all RF ports and control lines.

Logic Table for Switch On-Path

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

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