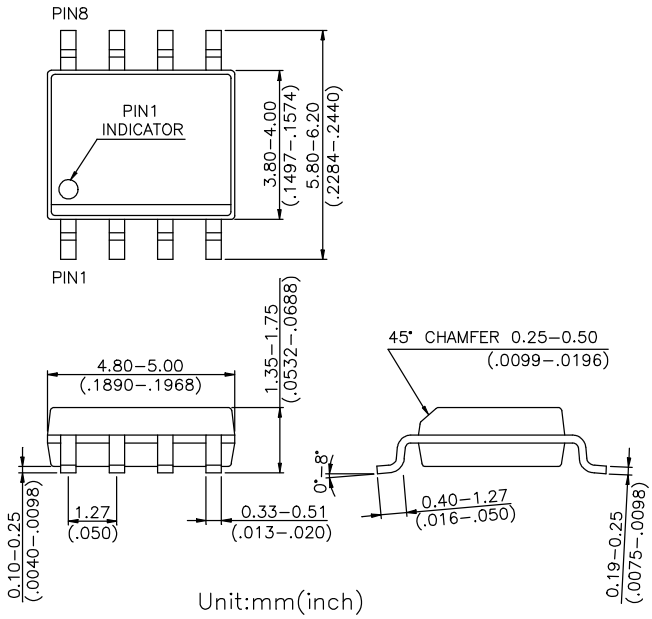
Features

- **Low Insertion Loss :** 0.70 dB @ 2 GHz
- **High Isolation:** 34 dB @ 2 GHz
- **Low DC Power Consumption**
- **Miniature SOP-8 Plastic Lead (Pb) Free Package, RoHS Compliant**
- **PHEMT process**

SOP-8



Description

The HWS434 is a GaAs MMIC SPDT terminated (non-reflective) switch in a low cost SOP-8 plastic lead (Pb) free package. The HWS434 features low insertion loss and high isolation with very low DC power consumption. Typical applications include CATV and basestation systems for either SPDT or SPST functions.

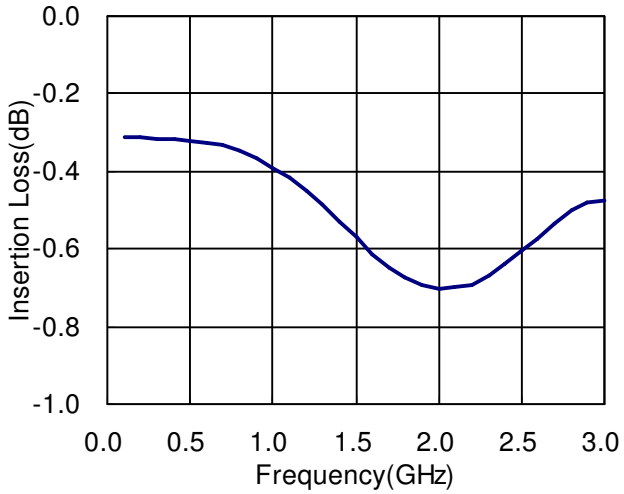
Electrical Specifications at 25℃ with 0, -5V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	DC-1.0 GHz 1.0-2.0 GHz 2.0-2.5 GHz		0.4 0.7 0.7	 0.9	dB dB dB
Isolation	DC-1.0 GHz 1.0-2.0 GHz 2.0-2.5 GHz	 27	43 34 30		dB dB dB
Return Loss	DC-2.5 GHz		12		dB
Input Power for One dB Compression	0.5-2.5 GHz		28		dBm
Input Third Order Intermodulation Intercept Point	0.5-2.5 GHz		48		dBm
Switching Time			50		ns
Control Current			30	300	uA

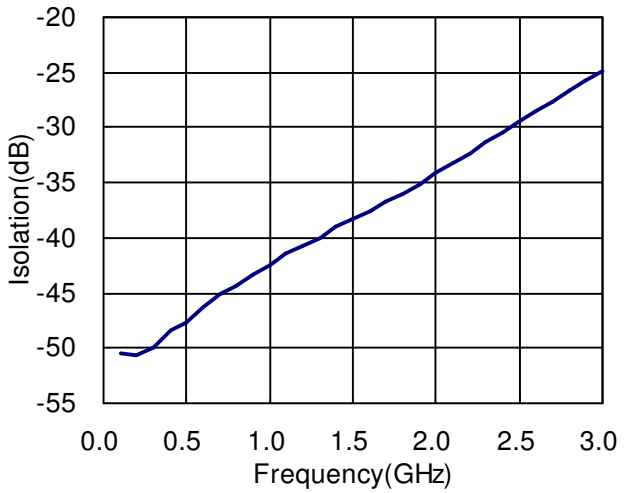
Note: All measurements made in a 50 ohm system with 0/-5V control voltages, unless otherwise specified.

Typical Performance Data @ +25℃

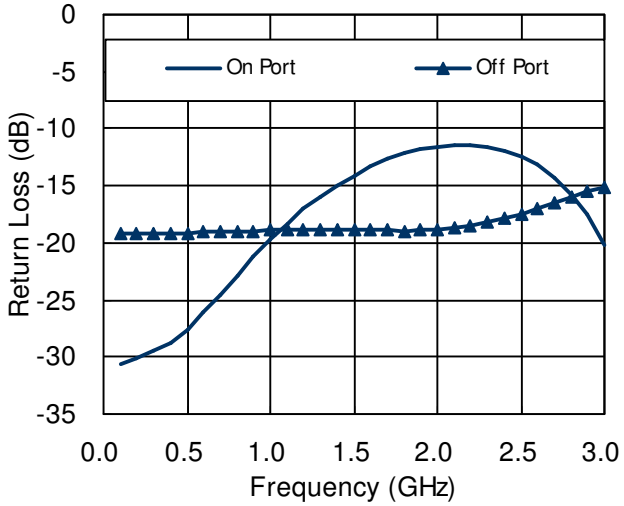
Insertion Loss vs Frequency



Isolation vs Frequency



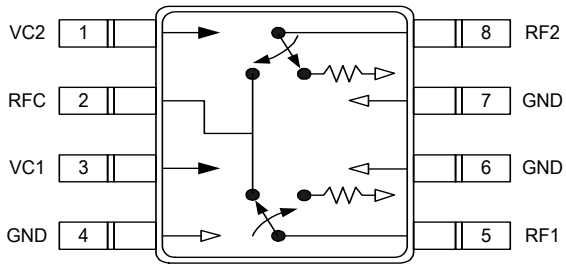
Return Loss vs Frequency



Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power	+32 dBm @ -5V
Control Voltage	-8V
Operating Temperature	-40℃ to +85℃
Storage Temperature	-65℃ to +150℃

Pin Out (Top View)



Logic Table for Switch On-Path

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

'1' = -3V to -5V

'0' = 0V to -0.2V