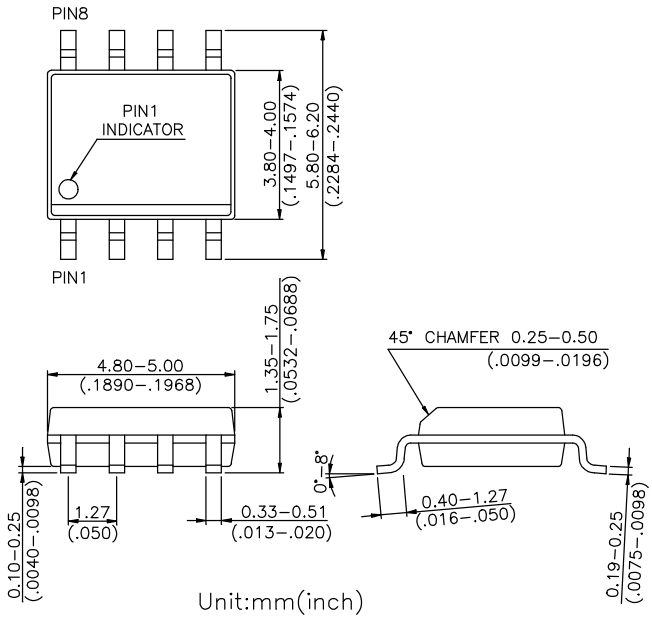
## Features

- **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.

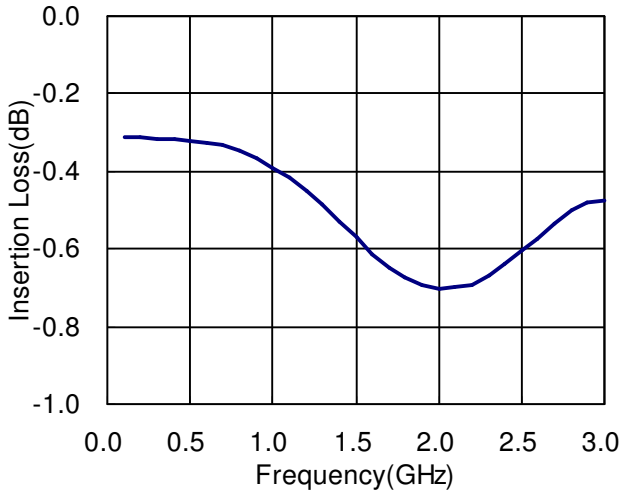
## Electrical Specifications at 25℃ with 0, -5V Control Voltages

| Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|
| Insertion Loss | DC-1.0 GHz<br>1.0-2.0 GHz<br>2.0-2.5 GHz | | 0.4<br>0.7<br>0.7 | <br><br>0.9 | dB<br>dB<br>dB |
| Isolation | DC-1.0 GHz<br>1.0-2.0 GHz<br>2.0-2.5 GHz | <br><br>27 | 43<br>34<br>30 | | dB<br>dB<br>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 |

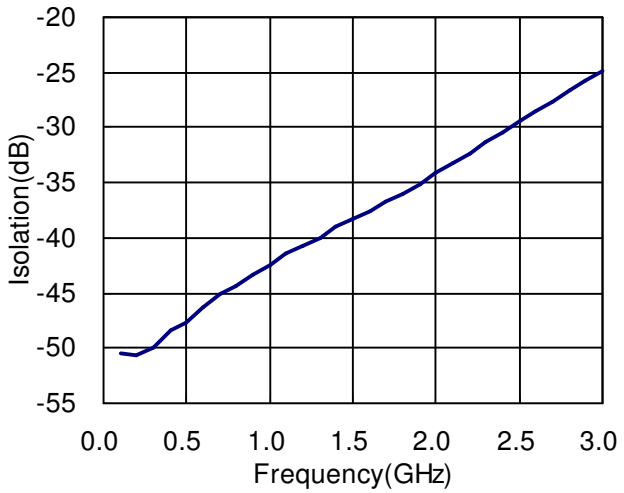
Note: All measurements made in a 50 ohm system with 0/-5V control voltages, unless otherwise specified.

## Typical Performance Data @ +25℃

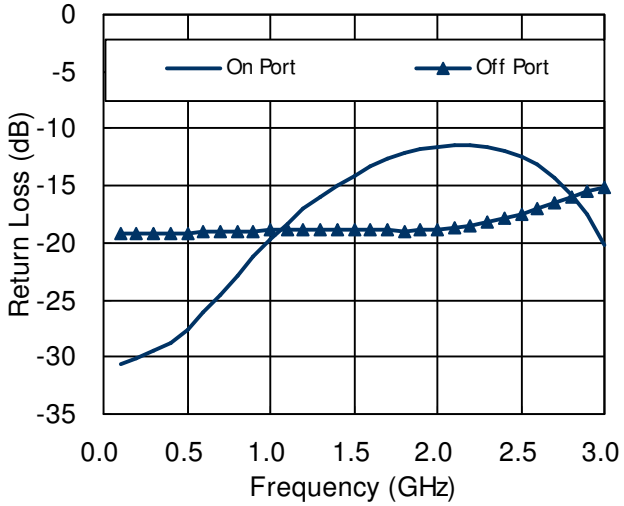
### Insertion Loss vs Frequency




### Isolation vs Frequency



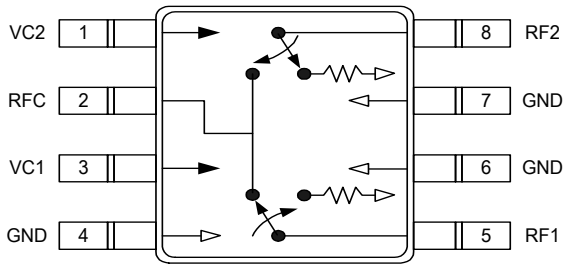

### Return Loss vs Frequency




## 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