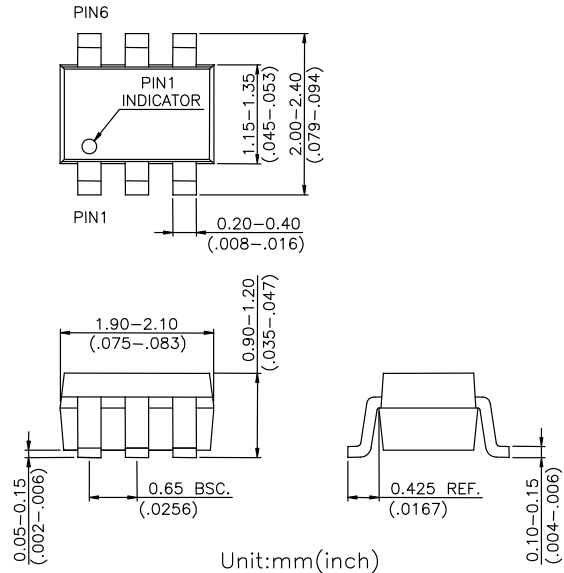


## Features

- **Low Insertion Loss:** 0.5 dB @ 2.5 GHz
- **Isolation:** 20 dB @ 2.5 GHz
- **Low DC Power Consumption**
- **Low Cost SOT-363 Plastic Lead (Pb) Free Package, RoHS Compliant**

## SOT-363



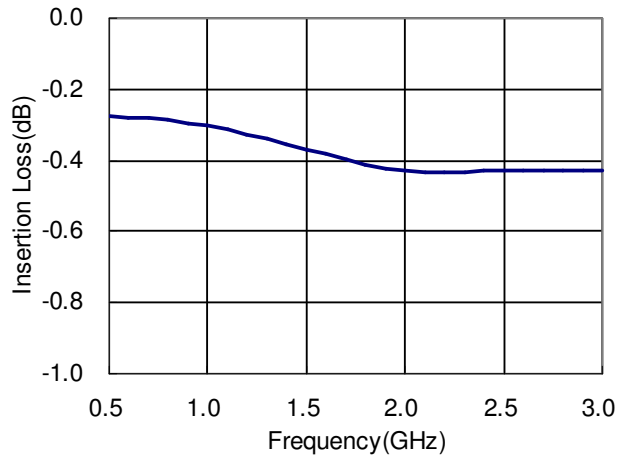
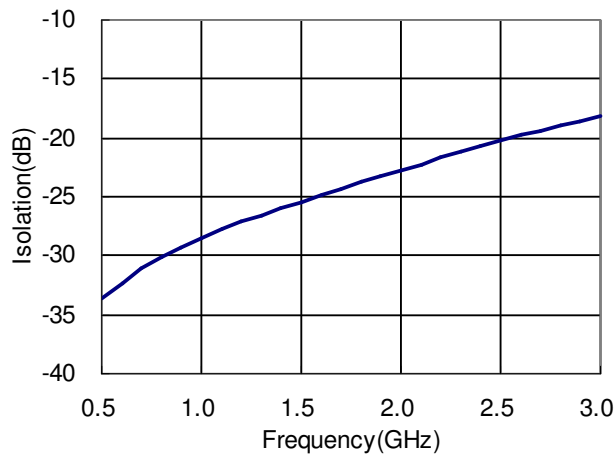
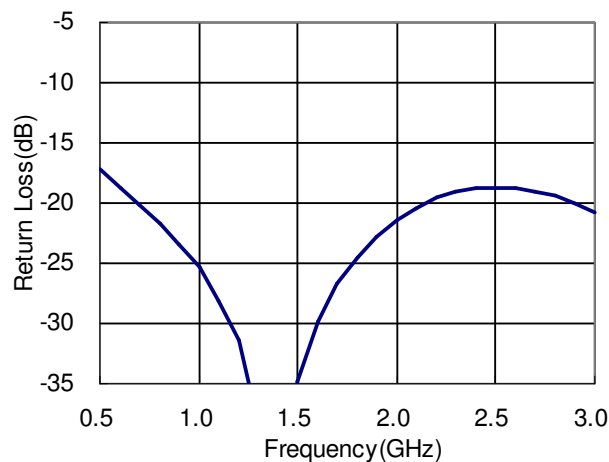
## Description

The HWS435 is a GaAs SPDT switch operating at DC-2.5 GHz in a low cost SOT-363 plastic lead (Pb) free package. The HWS435 features low insertion loss with very low DC power consumption. This switch can be used in IEEE 802.11b/g WLAN systems for transmit/receive or antenna diversity functions.

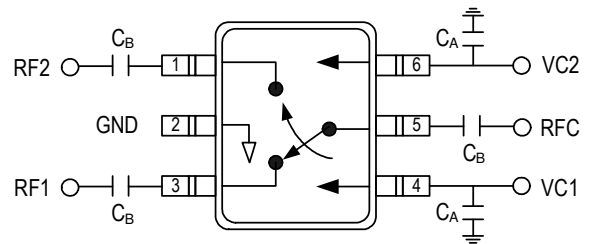
## Electrical Specifications at 25 °C with 0, +3V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	DC-1.0 GHz		0.3		dB
	DC-2.0 GHz		0.4		
	DC-2.5 GHz		0.5	0.7	
Isolation	DC-1.0 GHz		28		dB
	DC-2.0 GHz		22		
	DC-2.5 GHz	18	20		
Return Loss	DC-2.5 GHz		20		dB
Input Power for One dB Compression	0.5-2.5 GHz @ 0/+3V @ 0/+5V		30		dBm
			34		
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 Temperature	-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.  
 $C_B=C_A=51\text{pF}$  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' = +3V to +5V  
 '0' = 0V to +0.2V