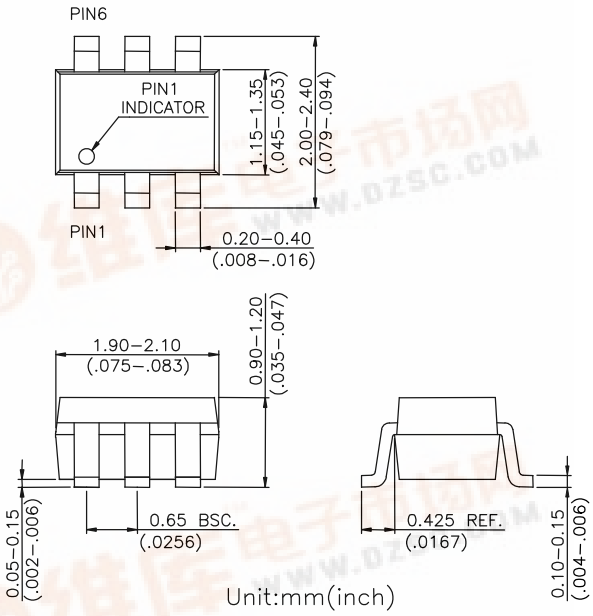
Features

- **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.

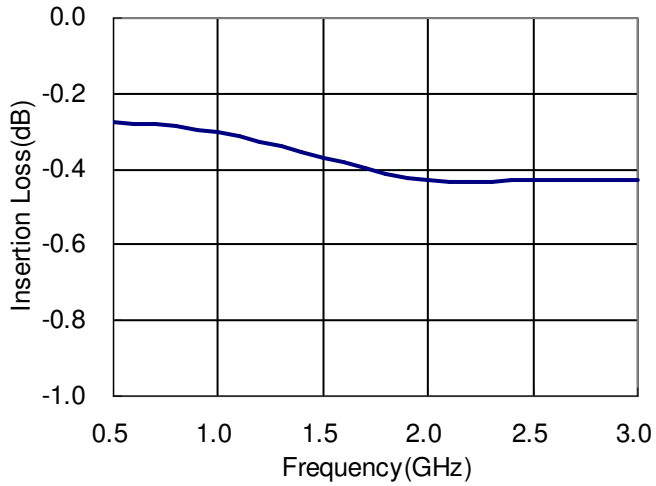
Electrical Specifications at 25℃ with 0, +3V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	DC-1.0 GHz DC-2.0 GHz DC-2.5 GHz		0.3 0.4 0.5	 0.7	dB
Isolation	DC-1.0 GHz DC-2.0 GHz DC-2.5 GHz	 18	28 22 20		dB
Return Loss	DC-2.5 GHz		20		dB
Input Power for One dB Compression	0.5-2.5 GHz @ 0/+3V @ 0/+5V		 30 34		 dBm dBm
Switching Time			20		ns
Control Current			5	100	uA

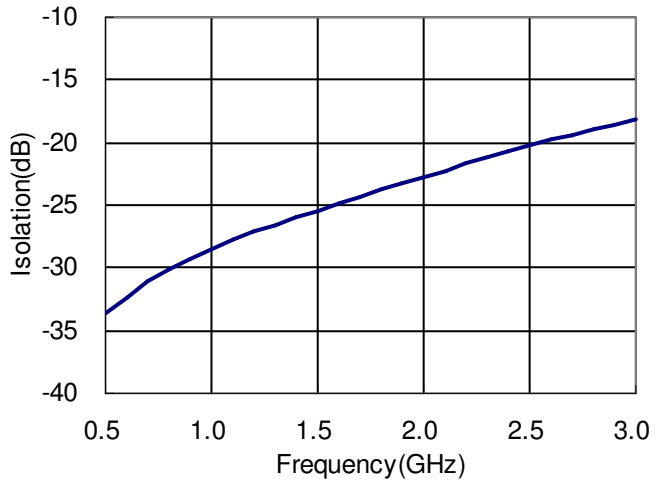
Note: All measurements made in a 50 ohm system with 0/+3V control voltages, unless otherwise specified.

Typical Performance Data @ +25℃

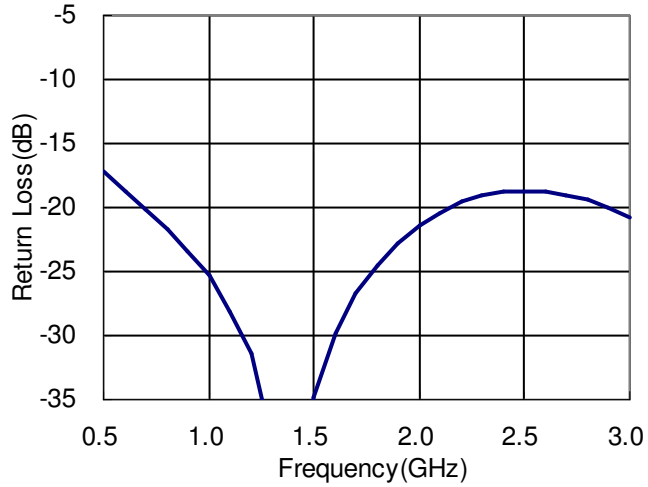
Insertion Loss vs Frequency



Isolation vs Frequency



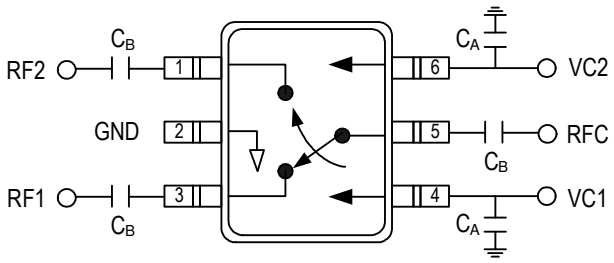
Return Loss vs Frequency



Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power 0.5-2.5 GHz	+34 dBm
Control Voltage	+6V
Operating Temperatur	-40℃ to +85℃
Storage Temperature	-65℃ to +150℃

Pin Out (Top View)



DC blocking capacitors C_B are required on all RF ports.
C_B=C_A=51pF 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