

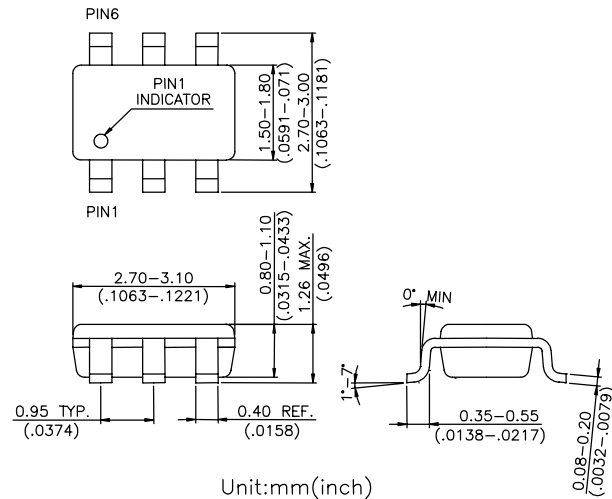
Features

- **Low Insertion Loss** : 0.40dB @0.9GHz
- **High Isolation**: 28dB @0.9GHz
- **Harmonics**: <-65dBc
- **Low DC Power Consumption**
- **Low Cost SOT-26 Plastic Package**

Description

The HWS341 is a GaAs MMIC SPDT high power switch in a low cost SOT-26 plastic package. The HWS341 features low insertion loss with very low DC power consumption. This high power switch can be used in GSM and PCS systems as selection of transmit or receive function for a common antenna.

SOT-26



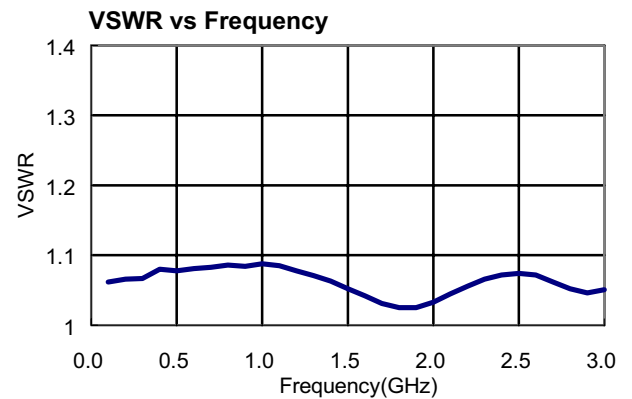
Electrical Specifications at 25°C with 0, +3V Control Voltages

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Insertion Loss	DC-1.0GHz		0.40	0.60	dB
	DC-2.0GHz		0.50	0.70	dB
Isolation	DC-1.0GHz	25	27.5		dB
	DC-2.0GHz	19	21.5		dB
					dB
VSWR	DC-2.0GHz		1.20:1		
Input Power for One dB Compression	0.5-2.0GHz 0/+3.0V		38		dBm
2 nd & 3 rd Harmonics	34dBm @1GHz 0/+3.0V		70		dBc
Switching Time			200		ns
Control Current				100	μA

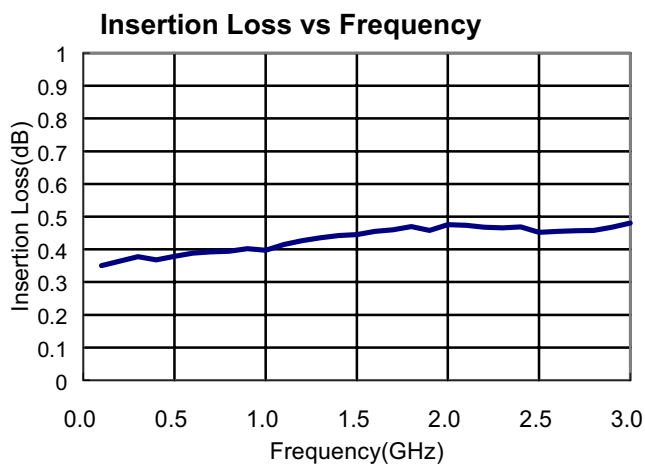
Note: All measurements made in a 50Ω system with 0/+3.0V control voltages, unless otherwise specified.

Absolute Maximum Ratings

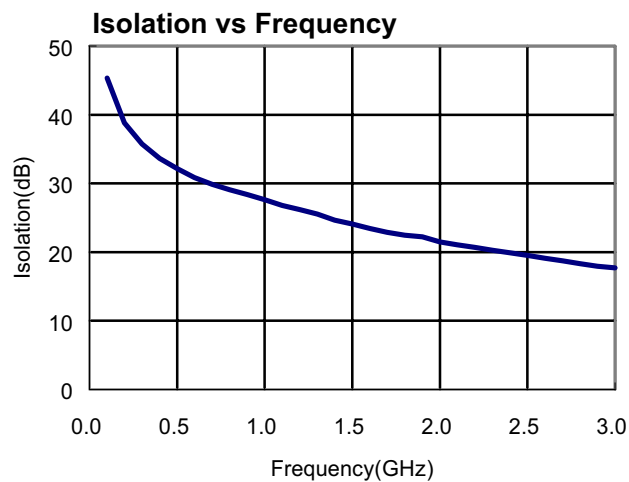
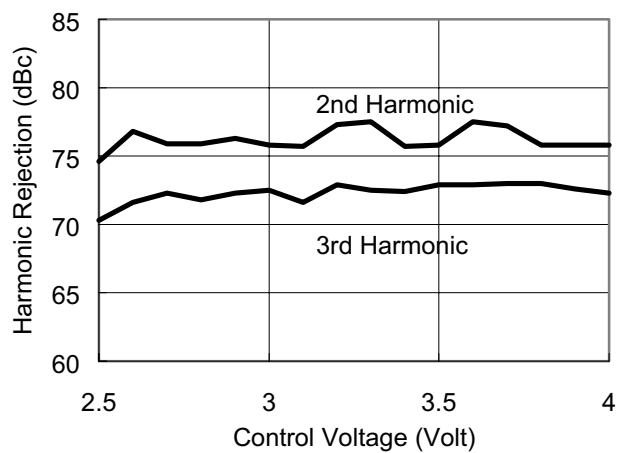
Parameter	Absolute Maximum
RF Input Power 0.5-2.0GHz	+38dBm
Control Voltage	+8V
Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +150°C



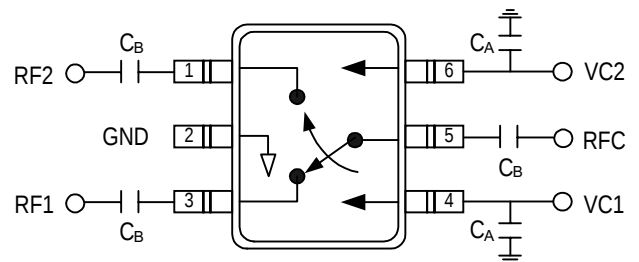
Typical Performance at +25°C



Harmonic Rejection vs Control Voltage @34dBm, 1GHz



Pin Out



DC blocking capacitors C_B are required on all RF ports.
 $C_B = C_A = 51\text{pF}$ for operating frequency > 500MHz.

Truth Table

VC1	VC2	RFC-RF1	RFC-RF2
V_{High}	0	Insertion Loss	Isolation
0	V_{High}	Isolation	Insertion Loss

$V_{\text{High}} = +3\text{V to } +5\text{V}$