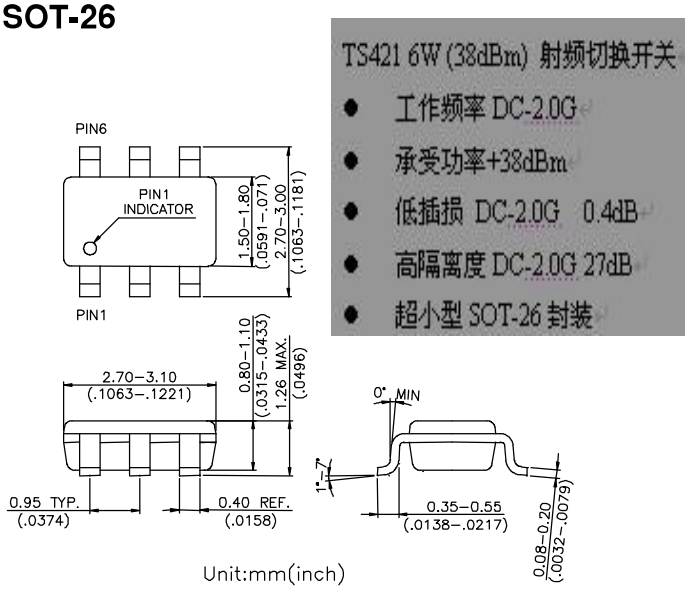
Features

- **Low Insertion Loss :** 0.40 dB @ 0.9 GHz
- **High Isolation:** 28 dB @ 0.9 GHz
- **Harmonics:** <-65 dBc
- **Low DC Power Consumption**
- **Low Cost SOT-26 Plastic Lead (Pb) Free Package**
- **Lead Free and RoHS Compliant Version of TS341**

SOT-26



Description

The TS421 is a GaAs MMIC SPDT high power switch in a low cost SOT-26 plastic lead (Pb) free package. The TS421 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.

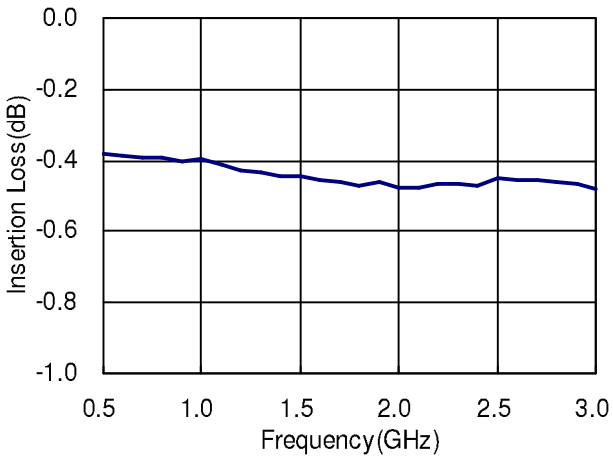
Electrical Specifications at 25℃ with 0, +3V Control Voltages

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

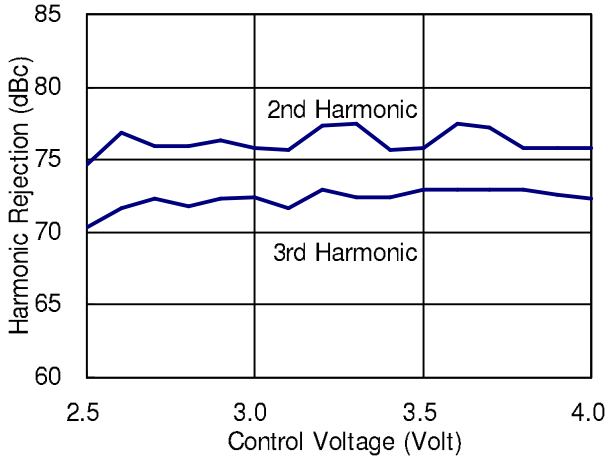
Note: All measurements made in a 50 ohm system with 0/+3.0V control voltages, unless otherwise specified.

Typical Performance Data @ +25°C

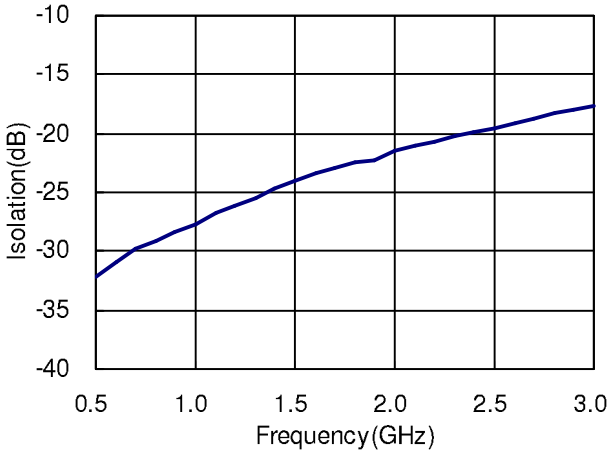
Insertion Loss vs Frequency



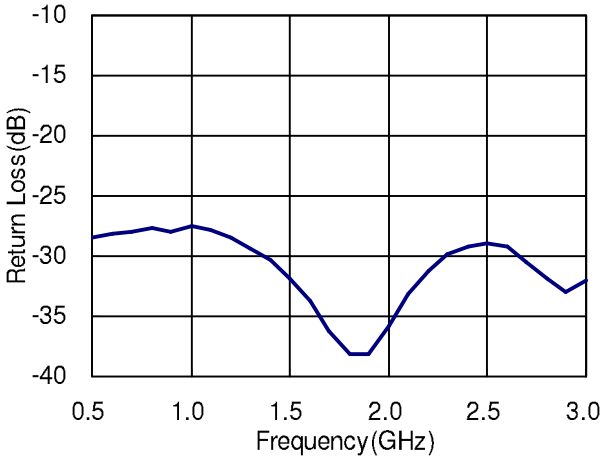
Harmonic Rejection @ 34 dBm, 1 GHz



Isolation vs Frequency



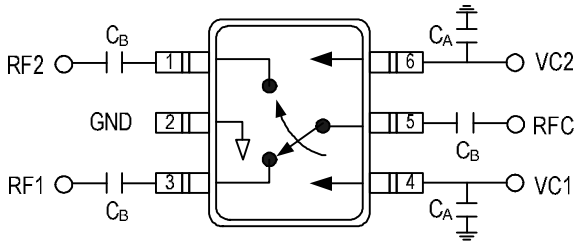
Return Loss vs Frequency



Absolute Maximum Ratings

Parameter	Absolute Maximum
RF Input Power 0.5-2.5 GHz	+38 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=51pF for operating frequency > 500MHz.

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