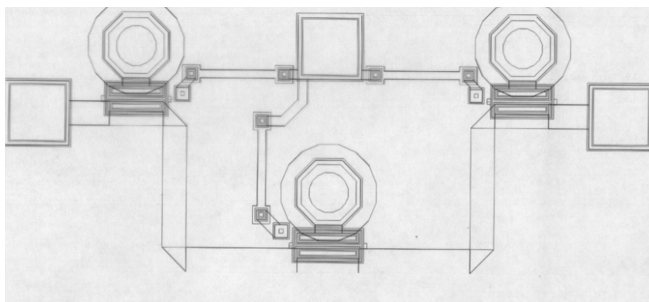


MMIC SPST Switch 1 - 50GHz

This **P35-5200-000-200** engineering datasheet describes a high performance Gallium Arsenide monolithic single pole single throw broadband RF switch optimised for 20-50GHz operation. It is suitable for use in broadband communications, instrumentation and electronic warfare applications. Control is effected by the application of 0V and -5V levels to the control line in accordance with the truth table below.

The die is fabricated using Bookham Technology's 0.2 μ m gate length HEMT process and is fully protected using Silicon Nitride passivation for excellent performance and reliability.



Features

- Broadband Switch
- Low insertion loss <0.8dB typically 1-50GHz
- Isolation typically 40dB at 50GHz

Electrical Performance

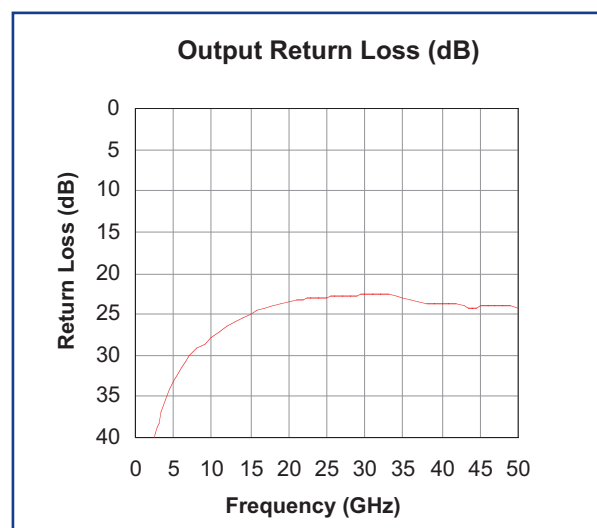
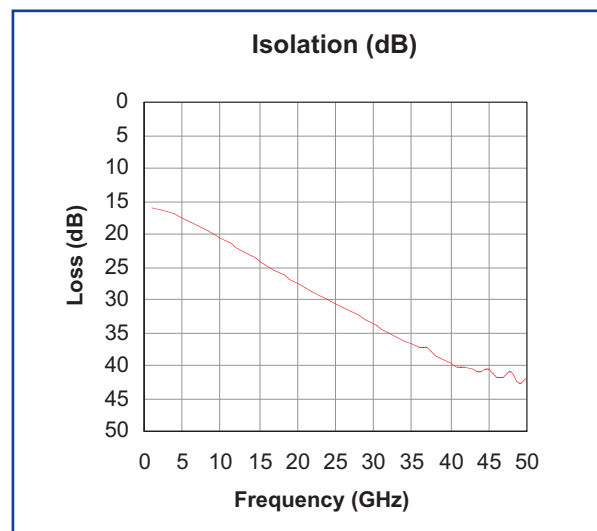
Ambient temperature = 22+/- 3 °C , ZO = 50 Ω, Gate control voltage = 0V/-5V

Parameter	Conditions	Min	Typ	Max	Units
Insertion Loss	20 GHz	-	0.25	-	dB
	40 GHz	-	0.5	-	dB
	50 GHz	-	0.7	-	dB
Isolation	20 GHz	-	25	-	dB
	40 GHz	-	39	-	dB
	50 GHz	-	40	-	dB
Input Return Loss 1	20 - 50GHz	-	20	-	dB
Output Return Loss 1	20 - 50GHz	-	20	-	dB
Control Voltage		-	0V/-5V	-	Volts

Notes

1. Return loss measured in low loss state.

Typical Performance at 22° C (RFOW)



Absolute Maximum Ratings

Max control voltage -8V
 Max I/P power TBD dBm

Truth Table

Control Line	State
A	J1/J2
-5V	Low Loss
0V	Isolation

Pad Details

Pad	Function
1	RF Input
2	RF Output
A	Vcontrol



Chip size: 0.81 x 0.32mm
 Bond pad size: 120µm square
 Chip thickness: 100µm

Ordering Information

P35-5200-000-200

MMICS

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Bookham Technology has a policy of continuous improvement. As a result certain parameters detailed on this flyer may be subject to change without notice. If you are interested in a particular product please request the product specification sheet, available from any RF sales representative.



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