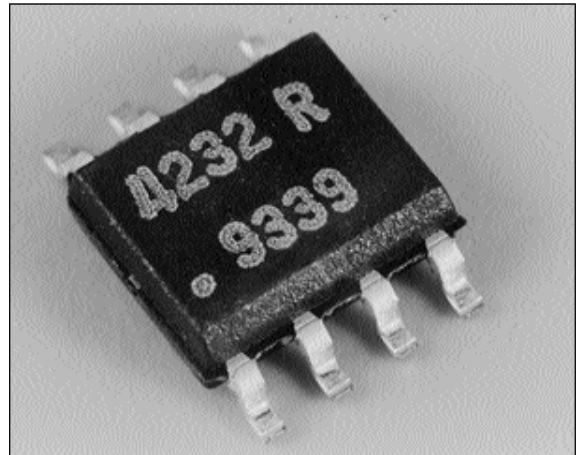


# GaAs MMIC SPDT Reflective Switch, DC - 2GHz

## Features

- Broadband performance
- Low insertion loss; 0.8dB typ at 1GHz
- Ultra low DC power consumption
- Fast switching speed; 3ns typical
- Positive or negative voltage operation
- SO8 plastic package



## Description

The P35-4232-P01-200 is a high performance Gallium Arsenide single pole double throw broadband RF switch. It is suitable for use in broadband communications and instrumentation applications. A high impedance reflective termination is presented at the isolated output of the switch. Control is effected by the application of complimentary 0V/-5V or 0/-8V signals to the control lines in accordance with the truth table. Alternatively, positive control voltages may be used if the Vref terminal is connected to the positive supply and decoupled to a good RF ground. In this case DC blocking capacitors should be used in series with the input and output RF connections.

This die is fabricated using MOC's 0.5μm gate length MESFET process (S20) and is fully protected using Silicon Nitride passivation for excellent performance and reliability. This device is packaged in a low-cost plastic package.

## Electrical Performance

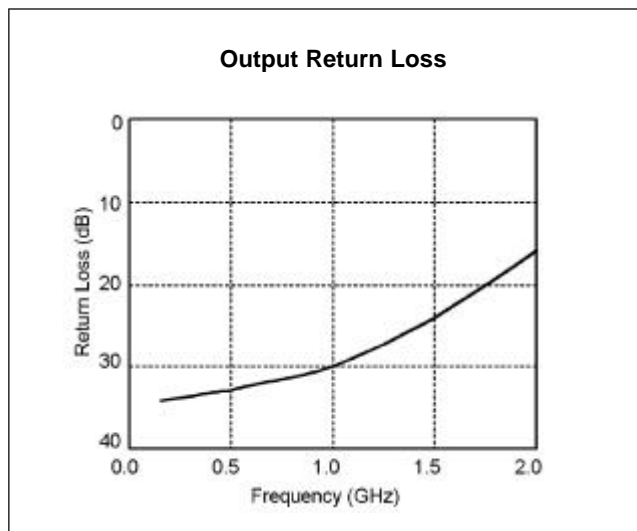
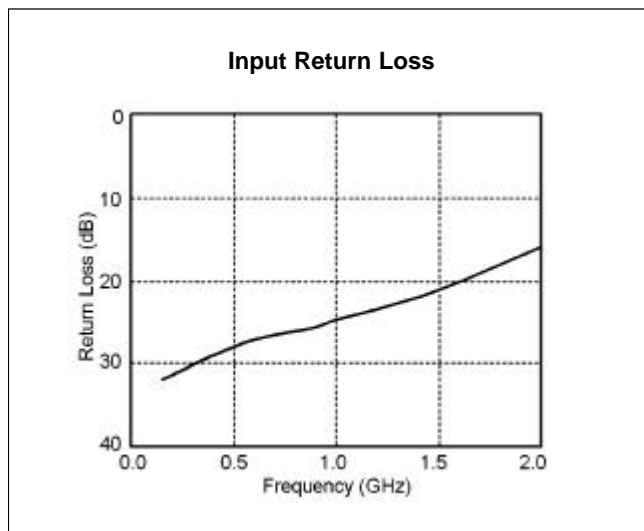
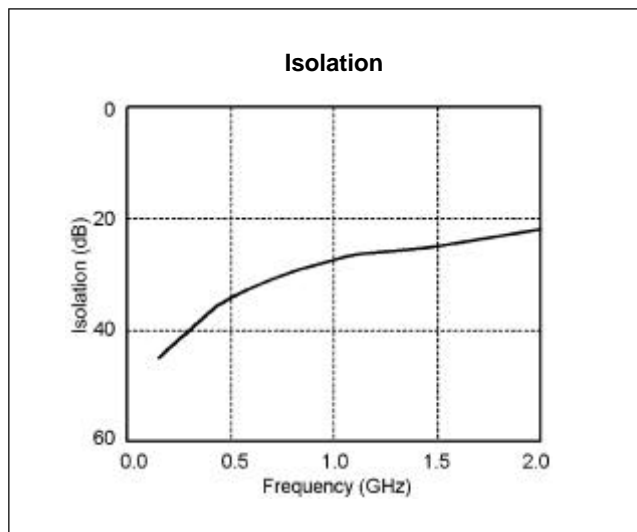
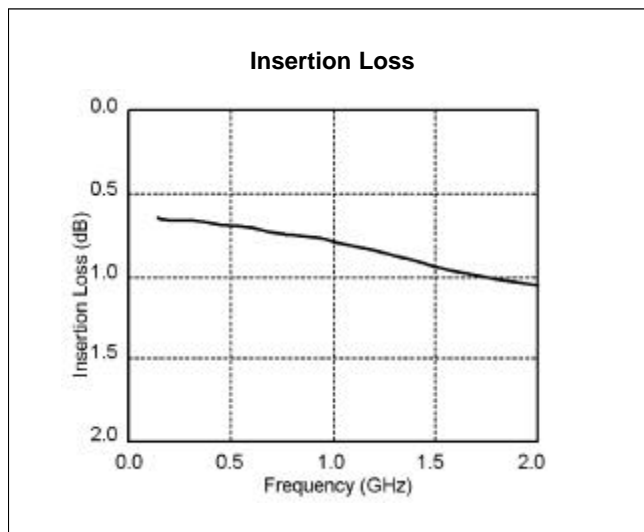
Ambient temperature = 22±3°C ,  $Z_O = 50\Omega$ , Control voltages = 0V/-5V unless otherwise stated

Parameter	Conditions	Min	Typ	Max	Units
Insertion Loss	DC - 1GHz	-	0.8	1.0	dB
	1 - 2GHz	-	1.0	2.0	dB
Isolation	DC - 1GHz	25	27	-	dB
	1 - 2GHz	20	22	-	dB
Input Return Loss <sup>1</sup>	DC - 1GHz	22	25	-	dB
	1 - 2GHz	12	15	-	dB
Output Return Loss <sup>1</sup>	DC - 1GHz	25	30	-	dB
	1 - 2GHz	12	15	-	dB
1dB power compression point <sup>2</sup>	0/-5V Control; 2GHz	15	33	-	dBm
	0/-8V Control; 2GHz	23	36	-	dBm
Switching Speed	50% Control to 10%/90%RF	-	3	-	ns

## Notes

1. Return Loss measured in low loss switch state.
2. Input power at which insertion loss compresses by 1dB.

## Typical Performance at 22°C



## Absolute Maximum Ratings

Max Vref voltage	+8V
Max control voltage	Vref - 8V
Max I/P power	+33 dBm
Operating temperature	-40°C to +85°C
Storage temperature	-65°C to +150°C



**Ordering Information: P35-4232-P01-200**

463/SM/00163/200 Iss 2/2

The data and product specifications are subject to change without notice. These devices should not be used for device qualification and production without prior notice.



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