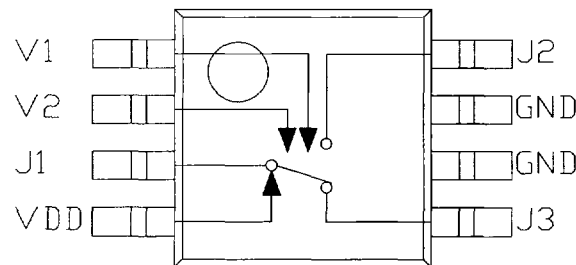


# SPDT High Power T/R Switch ITT501AJ

# ADVANCED INFORMATION

## FEATURES

- MSOP-8 package
- High Third Order Intercept +60dBm
- Positive Control
- Pin-for-pin compatible with standard "174" T/R switches
- Self-Aligned MSAG®-Switch MESFET Process



## Description

The ITT501AJ is a high power SPDT switch in a very small plastic MSOP package for commercial applications. The switch operates +3 to +10 volts.

## Maximum Ratings (T<sub>A</sub> = 25 °C unless otherwise noted)

Rating	Symbol	Value	Unit
RF input power	J <sub>1,2,3</sub>		
Supply Voltage	V <sub>DD</sub>		
Control Voltage	V <sub>1,2</sub>		
Junction Temperature	T <sub>J</sub>	+150	°C
Storage Temperature	T <sub>STG</sub>	-40 to +175	°C

## ELECTRICAL CHARACTERISTICS V<sub>DD</sub>= +5V T<sub>A</sub>=25 °C

Parameter	Test Conditions	Min	Typ	Max	Unit
Insertion Loss	DC-1.0 GHz		0.5		dB
	DC-2.0 GHz		0.5		dB
	DC-2.5 GHz		0.7		dB
	DC-3.0 GHz		1.4		dB
Isolation	DC-1.0 GHz		25		dB
	DC-2.0 GHz		24		dB
	DC-2.5 GHz		21		dB
	DC-3.0 GHz		17		dB
Return Loss	DC-1.0 GHz		28		dB
	DC-2.0 GHz		21		dB
	DC-2.5 GHz		17		dB
	DC-3.0 GHz		11		dB
T <sub>RISE</sub> , T <sub>FALL</sub>	10% to 90% RF, 90% to 10% RF		10		nS
T <sub>ON</sub> , T <sub>OFF</sub>	50% Control to 90% RF, 50 % Control to 10% RF		24		nS
1dB Compression Point	0/8V control	0.5-1.0 GHz		39	dBm
		0.5-3.0 GHz		38	dBm
Third Order Intercept	0/8V control	0.5-1.0 GHz		60	dBm
		0.5-3.0 GHz		60	dBm

Advanced Information - Specifications Subject to Change Without Notice

902214 B, April 1999



GaAsTEK  
5310 Valley Park Drive  
Roanoke, VA 24019 USA  
[www.gaastek.com](http://www.gaastek.com)  
Tel: 1-540-563-3949  
1-888-563-3949 (USA)  
Fax: 1-540-563-8616

DS 7-1

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION AND SUCH INFORMATION MAY NOT BE DISCLOSED FOR ANY PURPOSE NOR USED FOR MANUFACTURING PURPOSES WITHOUT WRITTEN PERMISSION FROM GAAsTEK, A UNIT OF ITT INDUSTRIES.