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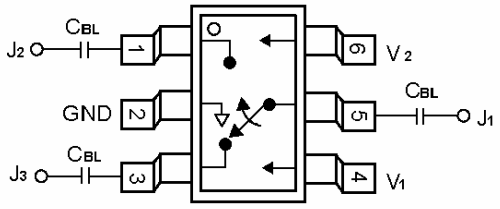
➢ Features ver4.06

Power T/R switch
Low Insertion Loss（0.3dB@0.9GHz）
Low DC Power Consumption
SC－70-6 Plastic Package
PHEMT
Lead (Pb)-free，RoHS-compliant packaging



➢ Description

K112 is a high power GaAs MMIC SPDT switch in a low-cost SC-70-6 plastic package.It can be controlled with positive voltages.This switch makes features with high isolation , low insertion loss and low DC Power Consumption。The switch is used in many various telecommunication applications include mobile telephone and GSA/CDMA base station, bluetooth.

DC blocking Capacitors (C_{BL}) must be supplied for positive operation.
C_{BL}=100pF for operation >500MHz.

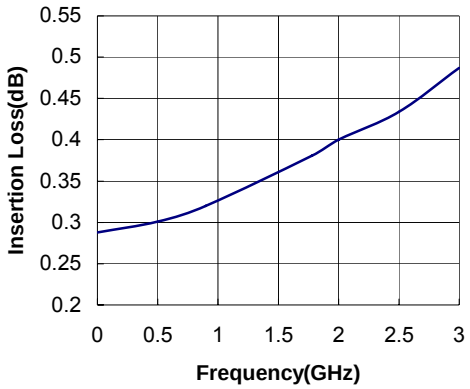
➢ Typical Electrical Specification at 25℃

Parameter [1]		Frequency [2]	Min.	Typ.	Max.	Units.
Insertion Loss [3]		DC-1.0GHz		0.3	0.4	dB
		1.0-2.0GHz		0.4	0.5	dB
		2.0-3.0GHz		0.5	0.7	dB
Isolation		DC-1.0GHz	22	25		dB
		1.0-2.0GHz	22	25		dB
		2.0-3.0GHz	20	24		dB
VSWR		DC-1.0GHz		1.2:1	1.4:1	
		1.0-2.0GHz		1.2:1	1.4:1	
		2.0-3.0GHz		1.3:1	1.4:1	
IP_3	Two-tone，input power +5dBm 0/+3V 0/+5V	 0.5-3.0GHz 0.5-3.0GHz		 +43 +50		 dBm dBm
Trise,Tfall	10%-90% or 90%-10 %RF			10		ns
Ton,Toff	50%CTL to 90/10% RF)			20		ns
P_{-1}	0/+3V	0.5-3.0GHz		+30		dBm
	0/+5V	0.5-3.0GHz		+34		dBm
Control Voltages	V_{Low}=0-0.2V@20μA Max. V_{HIGH}=+3V@50μA Max. to +5V@100μA Max.					

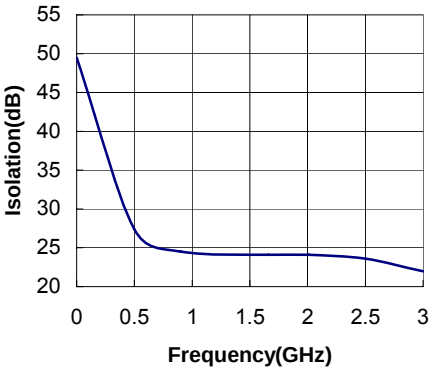
1. All measurements in a 50-Ω system, unless otherwise specified.
2. DC = 300 kHz。
3. Insertion Loss changes 0.3dB at 85℃.

➢ Typical Performance Curves (0, +5V)

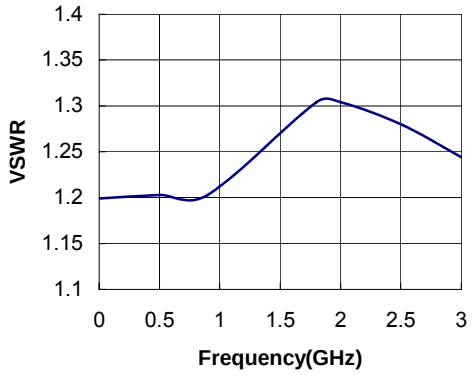
Insertion Loss vs. Frequency



Isolation vs. Frequency



VSWR vs. Frequency



➢ Truth Table

V_1	V_2	J_1-J_2	J_1-J_3
0	V_{High}	OFF	ON
V_{High}	0	ON	OFF

V_{High}= +3~+5V。

➢ Absolute Maximum Ratings

Characteristic	Value
Maximum Input Power	6W, >500MHz 0/7V
Control Voltage	-0.2V，+8V
Operating Temperature	-40℃ to 85℃
Storage Temperature	-65℃ to 150℃
θ_{JC}	25℃/W

1. Operation of this device above any one of these parameters may cause permanent damage.

➢ SC70-6 Outline Dimension