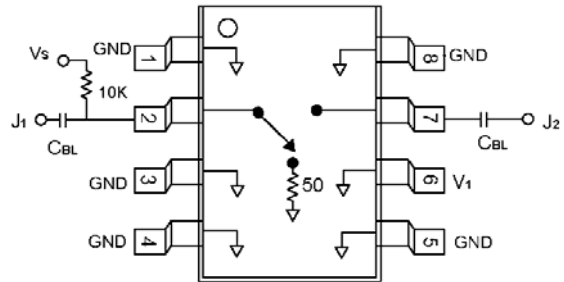


➤ **Features ver2.04**

- Positive Control Voltage
- High Isolation (50dB@0.9GHz, 40dB@1.8GHz)
- Low Insertion Loss (1.6dB@0.9GHz, 1.8dB@1.8GHz)
- J₂ Port Non-Reflective
- SOIC- 8 Plastic Package
- High reliability, good antistatic
- Lead (Pb)-free, RoHS-compliant packaging.



➤ **Description**

K106 is a GaAs MMIC SPST switch in a low-cost SOIC-8 plastic package. The switch makes features with high isolation and low insertion loss with +5V control voltage operation. The switch is used in many various telecommunication applications include mobile telephone and GSM/CDMA base station.

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

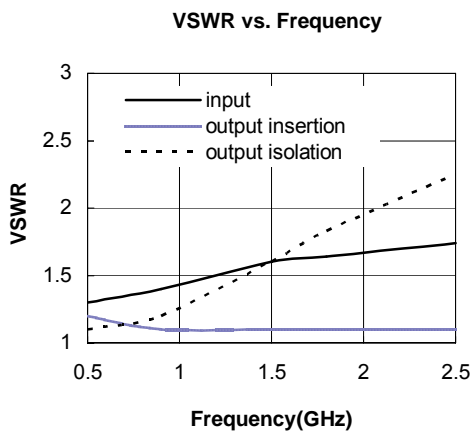
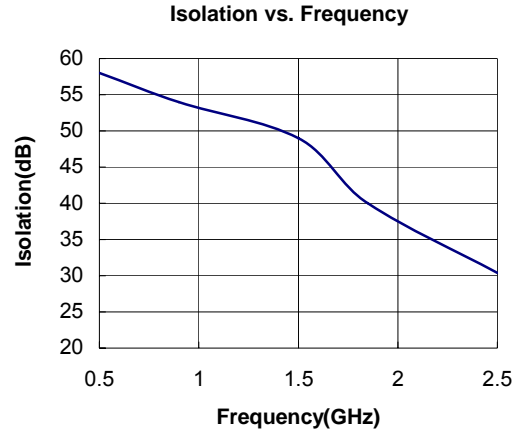
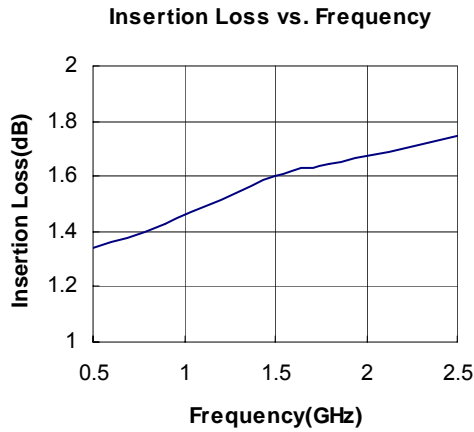
➤ **Typical Electrical Specification at 25°C (0,+5V)**

Parameter ¹	Frequency	Min.	Typ.	Max.	Units.
Insertion Loss ²	0.5-2.0GHz		1.6	1.8	dB
Isolation	0.5-1.0GHz	50	53		dB
	1.0-2.0GHz	37	40		dB
VSWR ³	0.5-1.5GHz		1.5:1		
	0.5-2.0GHz		1.7:1		
Trise,Tfall	10%-90% or 90%-10 %RF		9		μ s
Ton,Toff	50%CTL to 90/10% RF)		9		μ s
IP ₃	Two-tone, input power +5dBm		38		dBm
P ₋₁			25		dBm
Control Voltages	V _{LOW} =0-0.2V@20 μ A Max. V _{HIGH} =+5V@50 μ A Max. to +7V@100 μ A Max. V _S =V _{HIGH} ±0.2V				

1. All measurements in a 50-Ω system, unless otherwise specified.
2. Insertion Loss changes 0.3dB at 85°C.
3. Insertion Loss state and J1 port.

➤ Typical Performance Curves

(0, +5V)



➤ Truth Table

V1	J ₁ -J ₂
0	OFF
V _{HIGH}	ON

"0" = 0 ± 0.2V

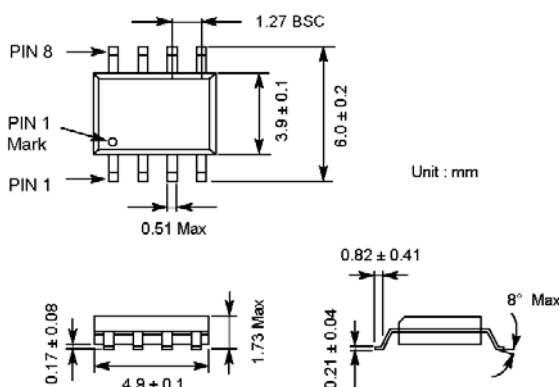
V_{HIGH} = +5 ± 0.2V

V_s = +5 ± 0.2V

➤ Absolute Maximum Ratings

Characteristic	Value
Maximum Input Power	2 W Max. > 500 MHz, 0/+7V Control
Supply Voltage	+8.5V
Control Voltage	-0.2V, +8.5V
Operating Temperature	-40°C to 85°C
Storage Temperature	-65°C to 150°C
θ _{JC}	25°C/W

➤ SOIC-8 Outline Dimension



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