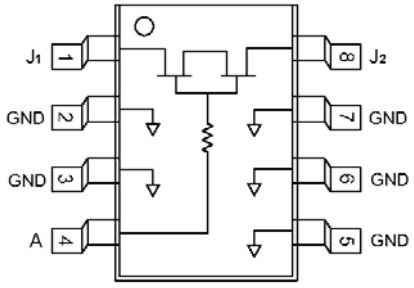
➢ Features ver3.06

13dB Variable Attenuation Volume
Low Direct Current Poer Loss 50μW
High Switch Speed
0~-4V Single Power Control
SOIC－8 Package
Meet RoHS Standard



➢ Description

S104 is a GaAs MMIC variable attenuator in the package of SOIC-8. It operates in the voltage of 0-4V, controlled by single power, easy to use. The attenuator is dapt to many telecommunication applications including mobile phone, GSM/CDMA base station, GPS system etc.

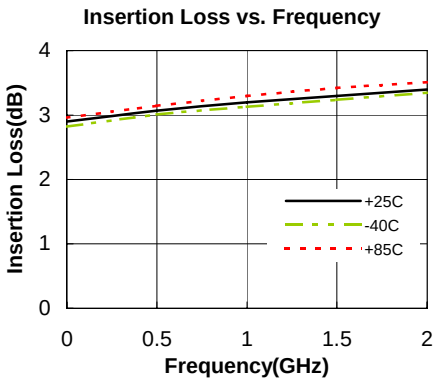
DC blocking Capacitors (C_{BL}) must be supplied for positive operation.
C_{BL}=47p F for operation >500MHz.

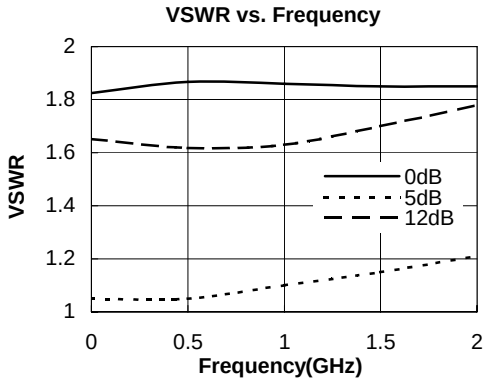
➢ Typical Electrical Specification at 25℃

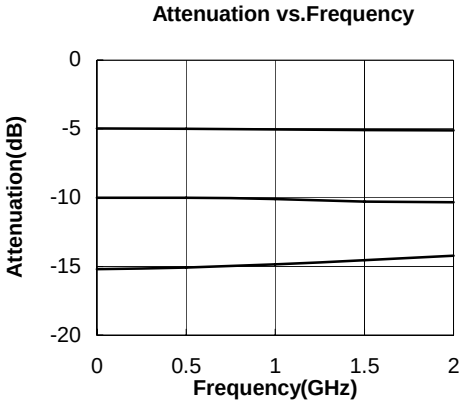
Characteristic		Frequency	Min.	Typ.	Max.	Unit
Insertion Loss		DC-0.1GHz		2.9	3.1	dB
		DC-0.5GHz		3.0	3.2	dB
		DC-1.0GHz		3.2	3.5	dB
		DC-2.0GHz		3.4	3.7	dB
Flatness		DC-0.1GHz		±0.1	±0.3	dB
		DC-0.5GHz		±0.2	±0.4	dB
		DC-1.0GHz		±0.5	±0.8	dB
		DC-2.0GHz		±1.2	±1.4	dB
VSWR				2.1:1		
Switch Characteristic	Rise or Fall (10/90% ot 90/10 RF)			20		ns
	On or Off (10/90% or 90/10 RF)			20		ns
IP_2	Two-tone，input power +5dBm	0.05GHz	28	34		dBm
		0.5-2.0GHz	40	47		dBm
IP_3	Two-tone，input power +5dBm	0.05GHz	18	31 [2]		dBm
		0.5-2.0GHz	18.5	36 [2]		dBm
Pwer Characteristic	Linearity Status				13	dBm
	Maximum Input Power				21	dBm
Control Voltage	V=0~ -4V @20μA Max					

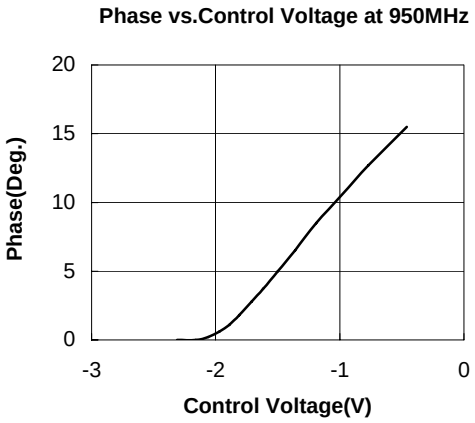
1. All measurements in a 50-Ω system, unless otherwise specified
2. Standard when the attenuation volum > 6dB

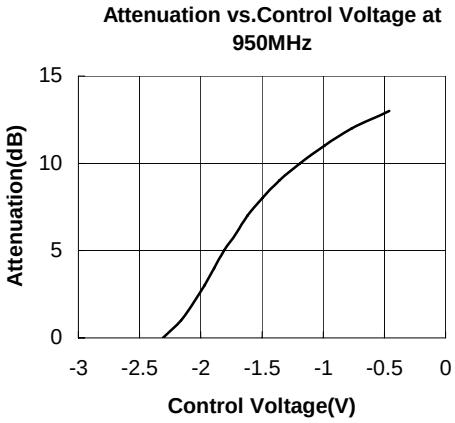
➢ Typical Performance Curves



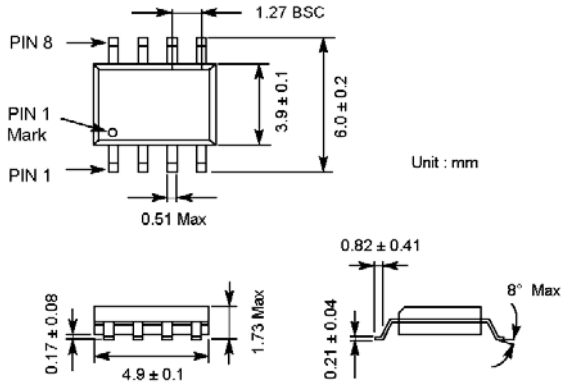








➢ SOIC-8 Outline Dimension



➢ Absolute Maximum Ratings

Item	Value
RF Input Power	21dBm
Control Voltage VC	+5V ~ -8.5V
Operation Temperature	-40℃～+85℃
Storage Temperature	-65℃～+150℃

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