



SPM0103A

Low-Noise GaAs Amplifier MMIC

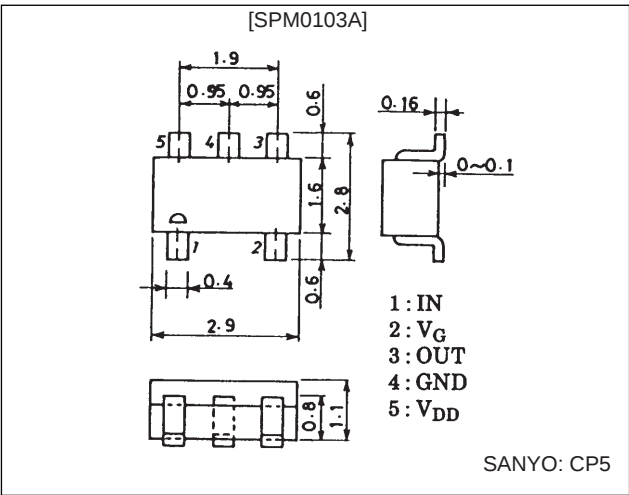
Features

- Low-voltage, low-current operation
- Compact mini-mold package
- No matching circuits needed for I/O
- Low noise
- Ideal for use as first stage for mobile communications receiver amplifier

Package Dimensions

unit: mm

7272-CP5



Specifications

Absolute Maximum Ratings at Ta = 25°C

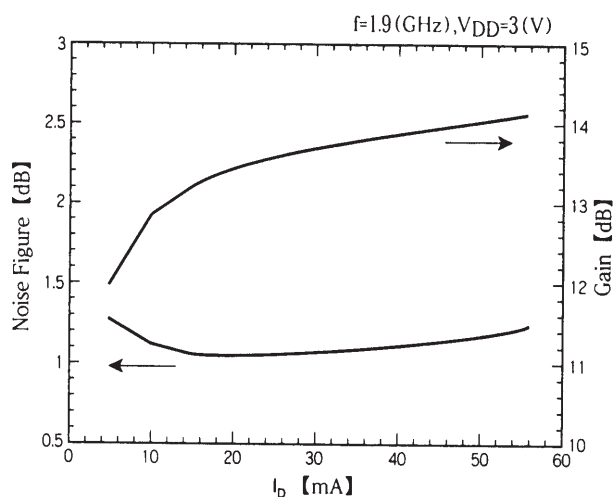
Parameter	Symbol	Conditions	Ratings	Unit
Power supply voltage	V _{DD}		5	V
Gate voltage	V _G		-2	V
Allowable power dissipation	P _D		0.25	W
Operating temperature	T _{opr}	V _{DD} = 3 V, I _D = 60 mA or less	-30 to +90	°C
Storage temperature	T _{stg}		-55 to +150	°C
Junction temperature	T _j		150	°C

Electrical Characteristics at Ta = 25°C

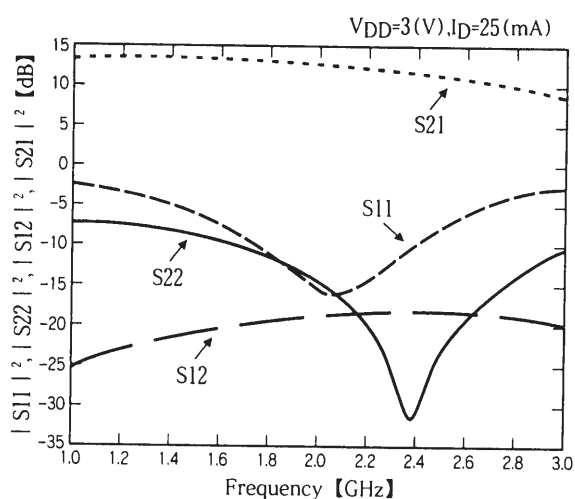
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain current I _D	I _D	V _{DD} = 3 V, V _G = 0	50	70	95	mA
Noise figure NF	NF	V _{DD} = 3 V, I _D = 25 mA, f = 1.9 GHz		1.1	1.5	dB
Linear gain G _L	G _L	V _{DD} = 3 V, I _D = 25 mA, f = 1.9 GHz		12		dB
VSWR (input)		V _{DD} = 3 V, I _D = 25 mA, f = 1.9 GHz		2.1		
VSWR (output)		V _{DD} = 3 V, I _D = 25 mA, f = 1.9 GHz		2.1		

Individual component name indication: MJ

Current-Dependent Characteristics



Frequency Characteristics



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