



SPM0103A

Low-Noise GaAs Amplifier MMIC

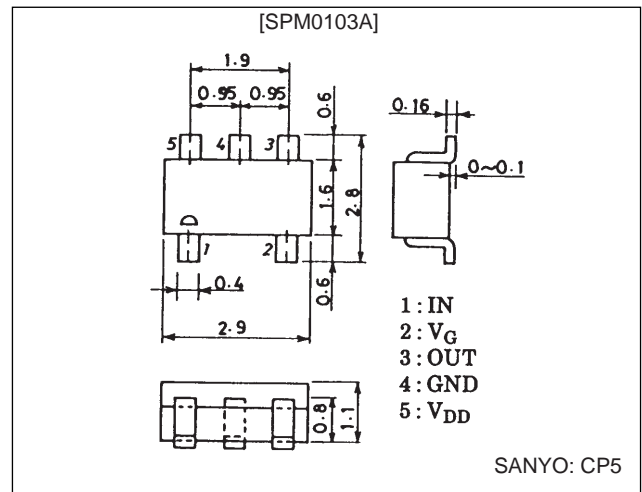
Features

- 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 $T_a = 25^\circ\text{C}$

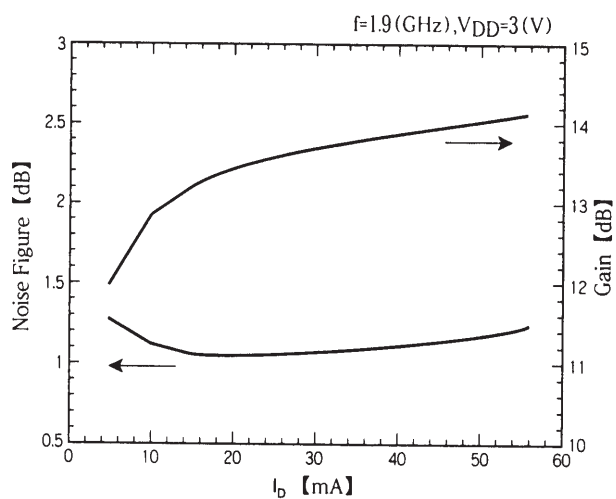
Parameter	Symbol	Conditions	Ratings	Unit
Power supply voltage	V_{DD}		5	V
Gate voltage	V_G		-2	V
Allowable power dissipation	P_D		0.25	W
Operating temperature	T_{opr}	$V_{DD} = 3\text{ V}$, $I_D = 60\text{ mA}$ or less	-30 to +90	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to +150	$^\circ\text{C}$
Junction temperature	T_j		150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

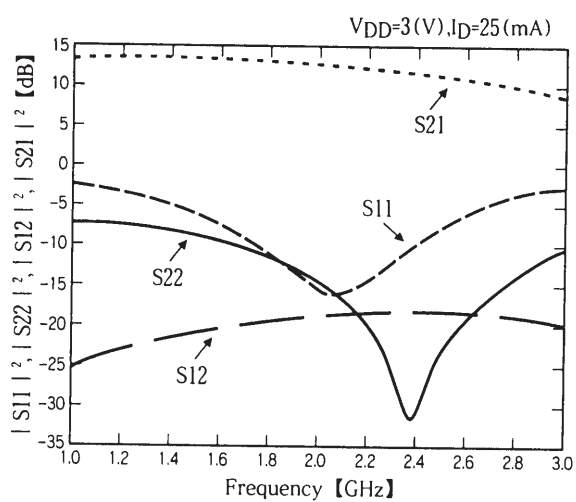
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain current I_D	I_D	$V_{DD} = 3\text{ V}$, $V_G = 0$	50	70	95	mA
Noise figure	NF	$V_{DD} = 3\text{ V}$, $I_D = 25\text{ mA}$, $f = 1.9\text{ GHz}$		1.1	1.5	dB
Linear gain	G_L	$V_{DD} = 3\text{ V}$, $I_D = 25\text{ mA}$, $f = 1.9\text{ GHz}$		12		dB
VSWR (input)		$V_{DD} = 3\text{ V}$, $I_D = 25\text{ mA}$, $f = 1.9\text{ GHz}$		2.1		
VSWR (output)		$V_{DD} = 3\text{ V}$, $I_D = 25\text{ mA}$, $f = 1.9\text{ GHz}$		2.1		

Individual component name indication: MJ

Current-Dependent Characteristics



Frequency Characteristics



- No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.
- Anyone purchasing any products described or contained herein for an above-mentioned use shall:
 - ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use:
 - ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.
- Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.

This catalog provides information as of August, 1997. Specifications and information herein are subject to change without notice.