

GN01094B

GaAs IC (with built-in ferroelectric)

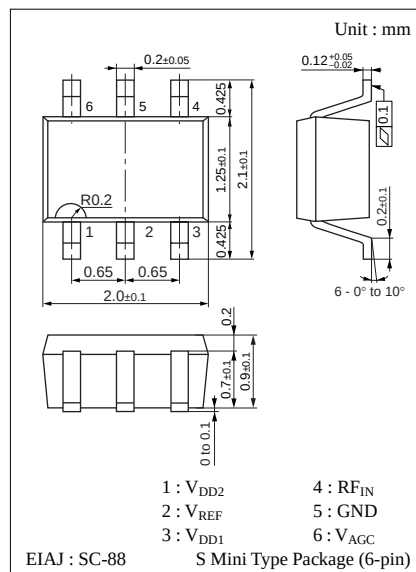
For the preamplifier of the transmitting section in a cellular phone
Other communication equipment

■ Features

- Super miniature S-Mini 6-pin package (2125 size)
- Transmitter amplifier : Wide dynamic range on low operation current
: Gain control function built-in

■ Absolute Maximum Ratings $T_a=25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Ratings	Unit
Power supply voltage	V_{DD}	8	V
Circuit current	I_{DD}	80	mA
Gate control voltage	V_{AGC}	0 to 3	V
Reference voltage	V_{REF}	5	V
Max input power	P_{IN}	-5	dBm
Allowable power dissipation	P_D	150	mW
Operating ambient temperature	T_{opr}	-30 to +90	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-40 to +120	$^{\circ}\text{C}$



Marking Symbol : KV

■ Electrical Characteristics $V_{DD1}=V_{DD2}=V_{REF}=3.0\text{ V}$, $f=906\text{ MHz}$, $T_a=25\text{ }^{\circ}\text{C}\pm 3\text{ }^{\circ}\text{C}$

Parameter	Symbol	Conditions	min	typ	max	Unit
Circuit current ^{*1}	I_{DD}	$V_{AGC}=2.0\text{ V}$, $P_{IN}=-20\text{ dBm}$		32	40	mA
Power gain 1 ^{*1}	PG1	$V_{AGC}=2.0\text{ V}$, $P_{IN}=-20\text{ dBm}$	27	31		dB
Power gain 2 ^{*1}	PG2	$V_{AGC}=0.5\text{ V}$, $P_{IN}=-20\text{ dBm}$		-14	-8	dB
Dynamic range	DR	PG1-PG2	35	45		dB
Adjacent channel leakage power (ACP) ^{*1, 2}	ACP	$P_{IN}=-15\text{ dBm}$, $P_{OUT}=5\text{ dBm}$ $\pm 900\text{ kHz Detuning}$, 30 kHz Bandwidth		-54	-49	dBc

Note) ^{*1} : Refer to measurement circuit.

^{*2} : Design-guaranteed items.

■ Measurement Circuit

