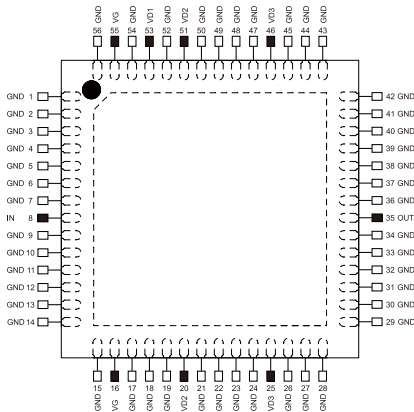
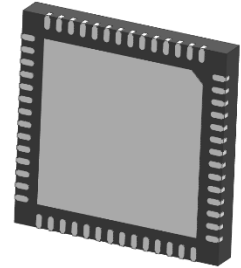


产品概述

PA0812C1 是一款性能优良的 GaAs 功率放大器芯片，频率范围覆盖 8~12GHz，可在脉冲和连续波模式下工作。脉冲模式下，小信号增益 23.5dB，饱和输出功率 40.5dBm，功率附加效率 45%。

主要特性

- 频率范围：8-12GHz
- 小信号增益（Pulse）：23.5dB
- 饱和输出功率（Pulse）：40.5dBm
- 功率附加效率（Pulse）：45%
- 输入回波损耗：-15dB
- 输出回波损耗：-16dB
- 静态工作电流（Pulse）：2A@+8V
- 芯片尺寸：6mm×6mm



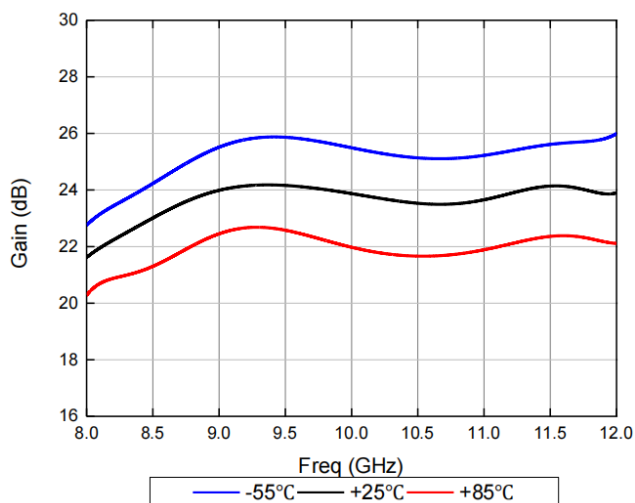
直流电参数 (TA=+25°C, VD1=VD2=VD3=+8V, VG=-0.8V*, Pulse 模式)

参数名称	符号	最小值	典型值	最大值	单位
频率范围	Freq	8	—	12	GHz
小信号增益	Gain	22	23.5	24	dB
饱和输出功率	Psat	40	40.5	41	dBm
功率附加效率	PAE	40	45	47	%
输入回波损耗	RL_in	—	-15	-11	dB
输出回波损耗	RL_out	—	-16	-10	dB
动态电流	IDD	—	2.6	3.1	A
静态工作电流*	IDQ	—	2	—	A

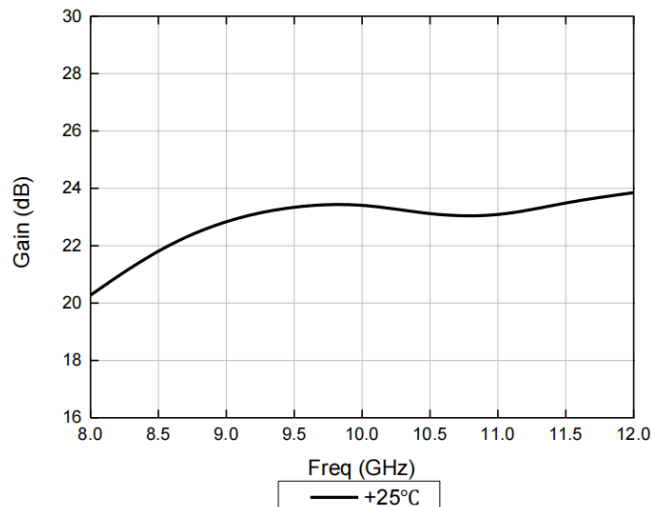
*VG 参考值：-0.8V for Pulse，-0.8V for CW。

测试曲线 (VG=-0.8V, VD1=VD2=VD3=+8V, 脉冲测试条件: 脉宽 1ms, 占空比 10%)

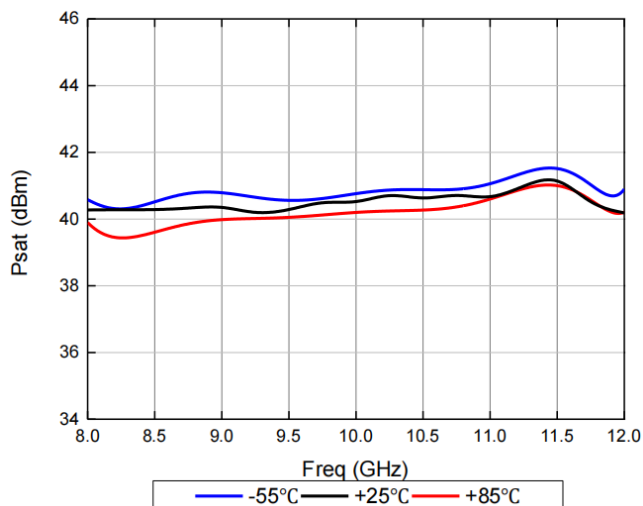
小信号增益 (Pulse)



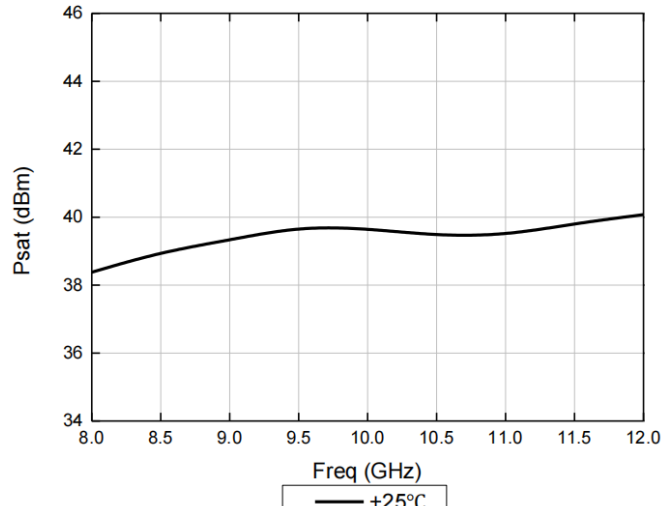
小信号增益 (CW)



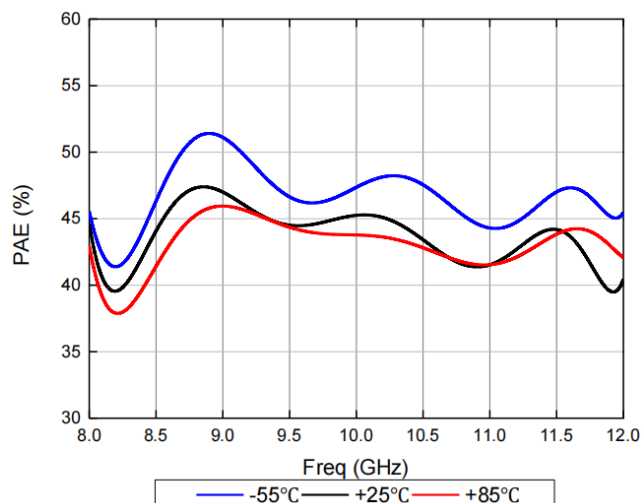
饱和输出功率 (Pulse)



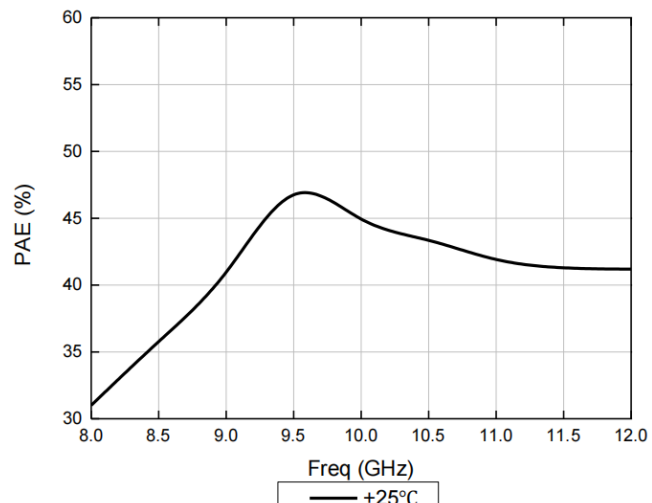
饱和输出功率 (CW)



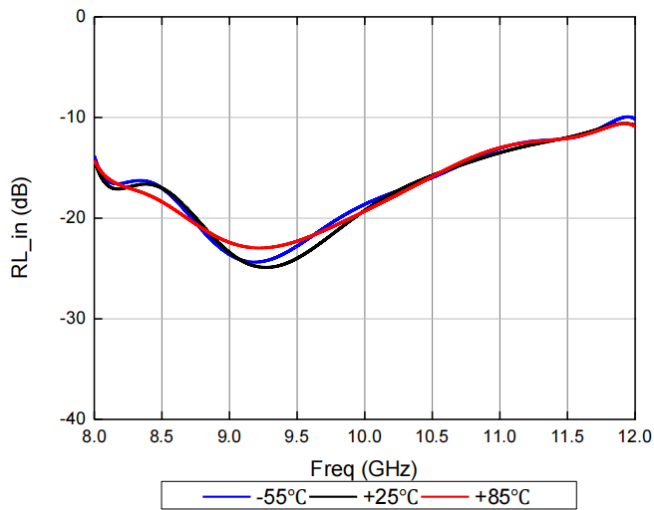
功率附加效率 (Pulse)



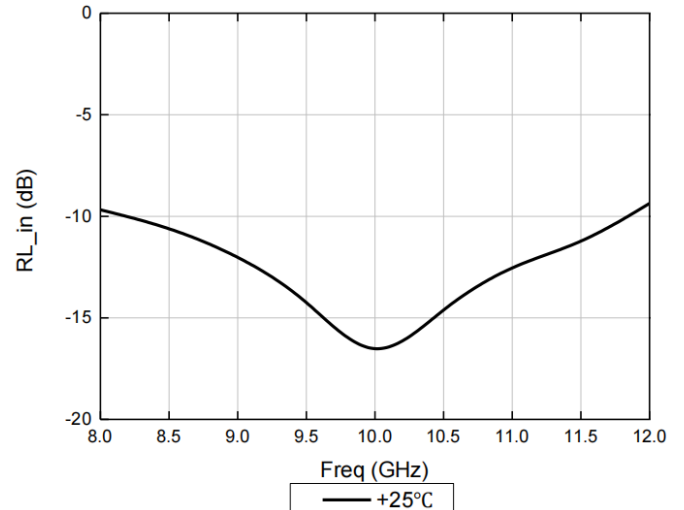
功率附加效率 (CW)



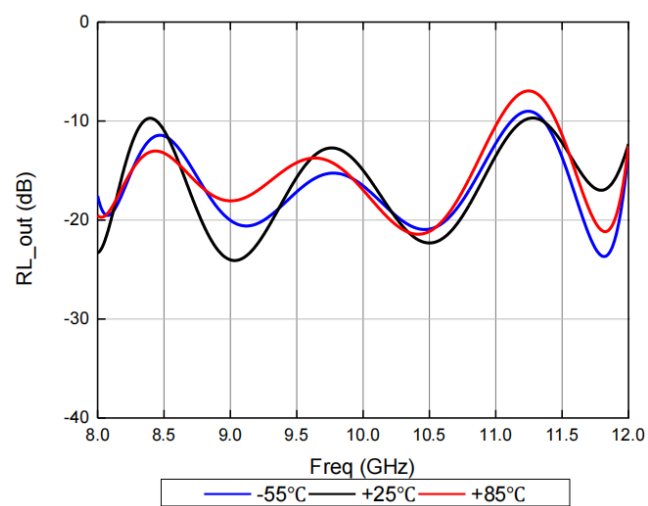
输入回波损耗 (Pulse)



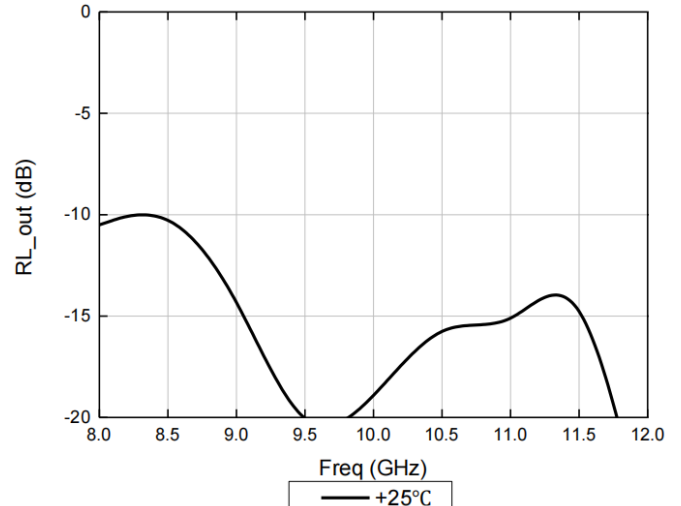
输入回波损耗 (CW)



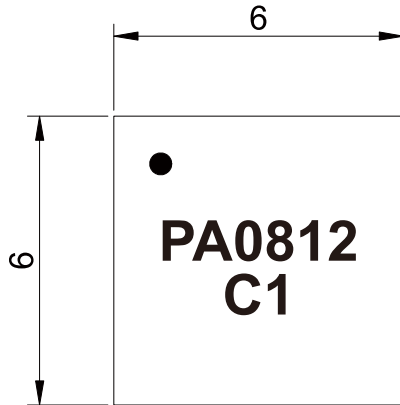
输出回波损耗 (Pulse)



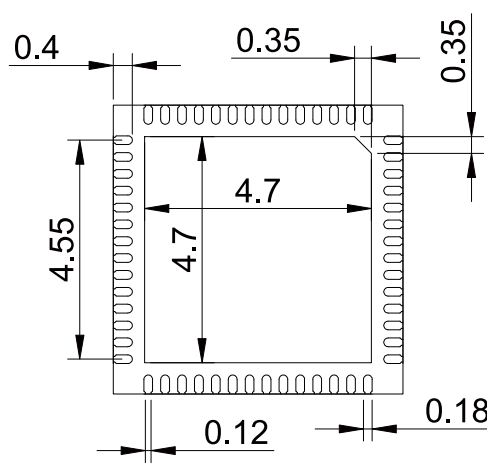
输出回波损耗 (CW)



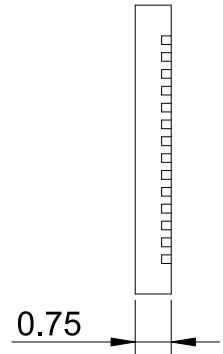
产品尺寸图



TOP VIEW

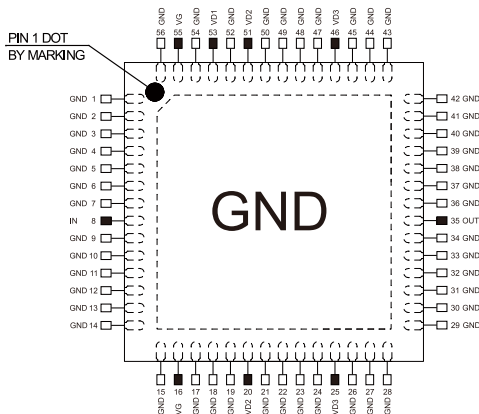


BOTTOM VIEW



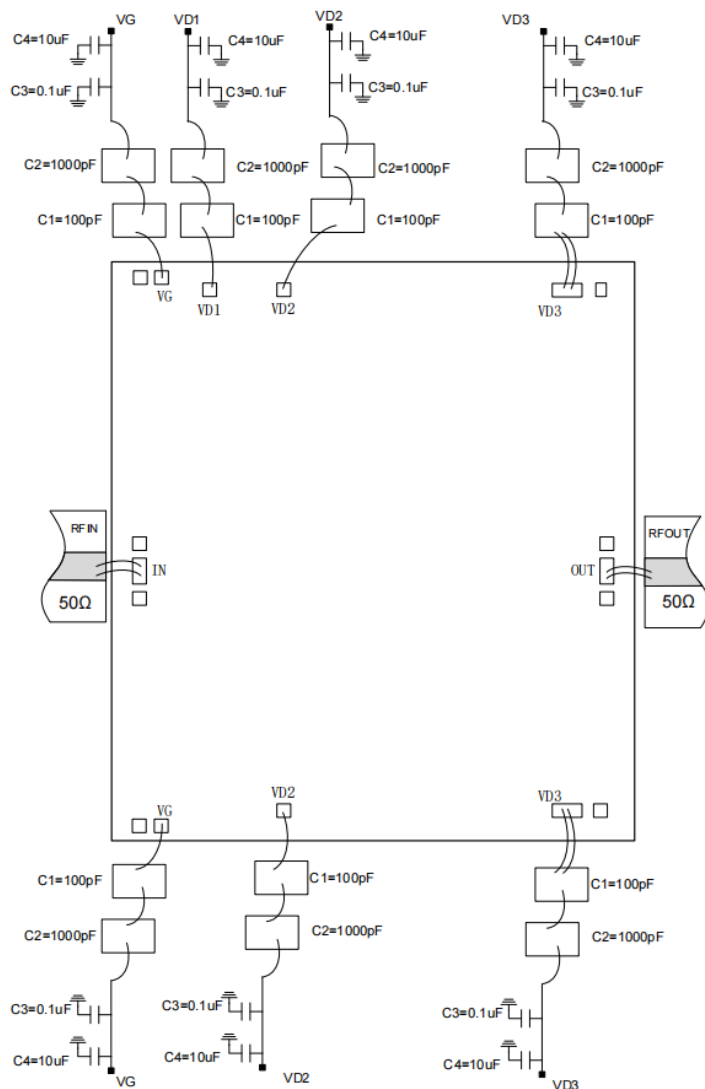
SIDE VIEW

端口定义



引脚编号	功能符号	功能描述	信号或电压
8	RFIN	射频信号输入端	RF
35	RFOUT	射频信号输出端	RF
16/55	VG	栅极电压, 建议外加 100pF 电容	-0.8V
53	VD1	第一漏极电压, 建议外加 100pF 电容	+8V
20/51	VD2	第二漏极电压, 建议外加 100pF 电容	+8V
25/46	VD3	第三漏极电压, 建议外加 100pF 电容	+8V
1/2/3/4/5/6/7/9/10/11/12/13/14/15/17/18/19/21/22/23/24/26/27/28/29/30/31/32/33/34/36/37/38/39/40/41/42/43/44/45/47/48/49/50/52/54/56/Paddle	GND	接地	/

建议装配图



使用参数极限

最大漏极工作电压	+9V
最大栅极工作电压	-0.5V
最大输入功率	+25dBm
贮存温度	-65°C~+150°C
工作温度	-55°C~+125°C