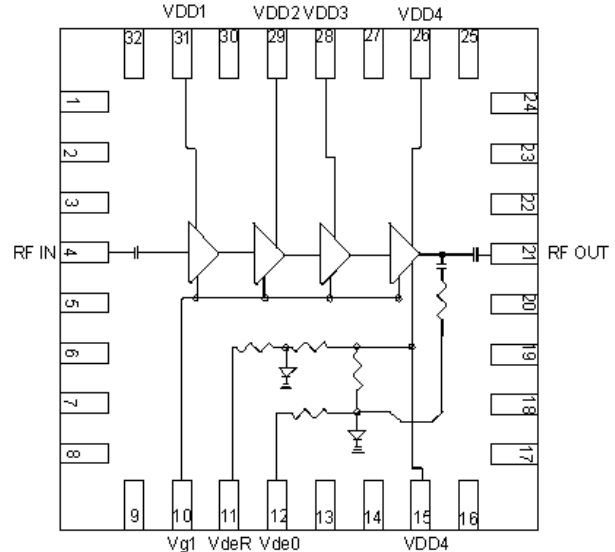


Features:

- Frequency Range: 27 – 33 GHz
- P1dB: +33 dBm
- Gain: 25 dB
- Vdd = 6V
- Idsq = 1600mA
- Input and Output Fully Matched to 50 Ω
- On-chip Output Power Detector

Applications:

- P2P Radio
- V-sat
- Military



Description:

The MMIC is a high power amplifier MMIC in a surface mount package designed for use in transmitters that operate at frequencies between 27GHz and 33GHz. In the operational frequency band, it provides 33dBm of output power (P-1dB) and 25dB of small-signal gain.

Absolute Maximum Ratings: ($T_a = 25\text{ }^\circ\text{C}$)*

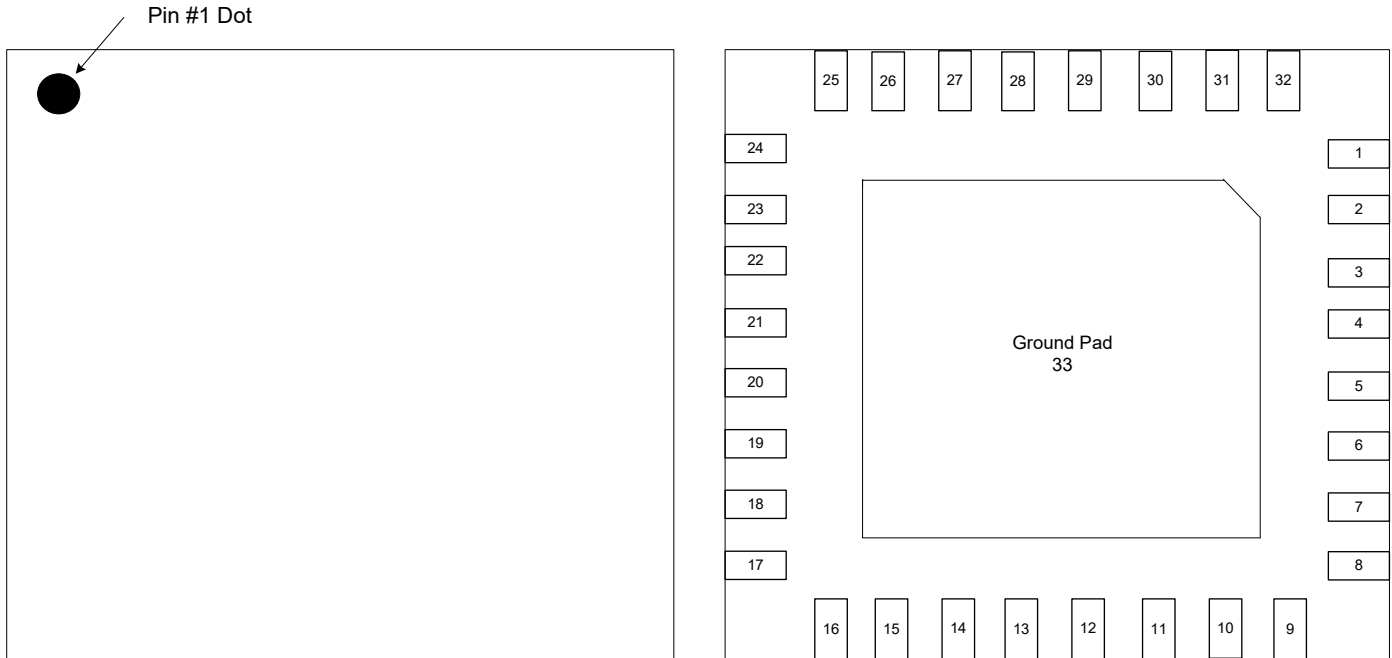
SYMBOL	PARAMETERS	UNITS	Min.	Max.
Vds	Drain-Source Voltage	V		6.5
Vg	Gate-Source Voltage	V	-2.1	0
Ig	First Gate Current	mA	-17	17
Pd	Power Dissipation	W		24
Pin max	RF Input Power	dBm		20
Tch	Channel Temperature	°C		+150
Tstg	Storage Temperature	°C		-55 to +150
Tmax	Max. Assembly Temp (20 sec max)	°C		+250

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

Electrical Specifications: $V_{ds}=6V$, $V_{gs}=-0.85V$, $I_{dsq}=1600mA$, $T_a=25^\circ C$ $Z_0=50\ ohm$

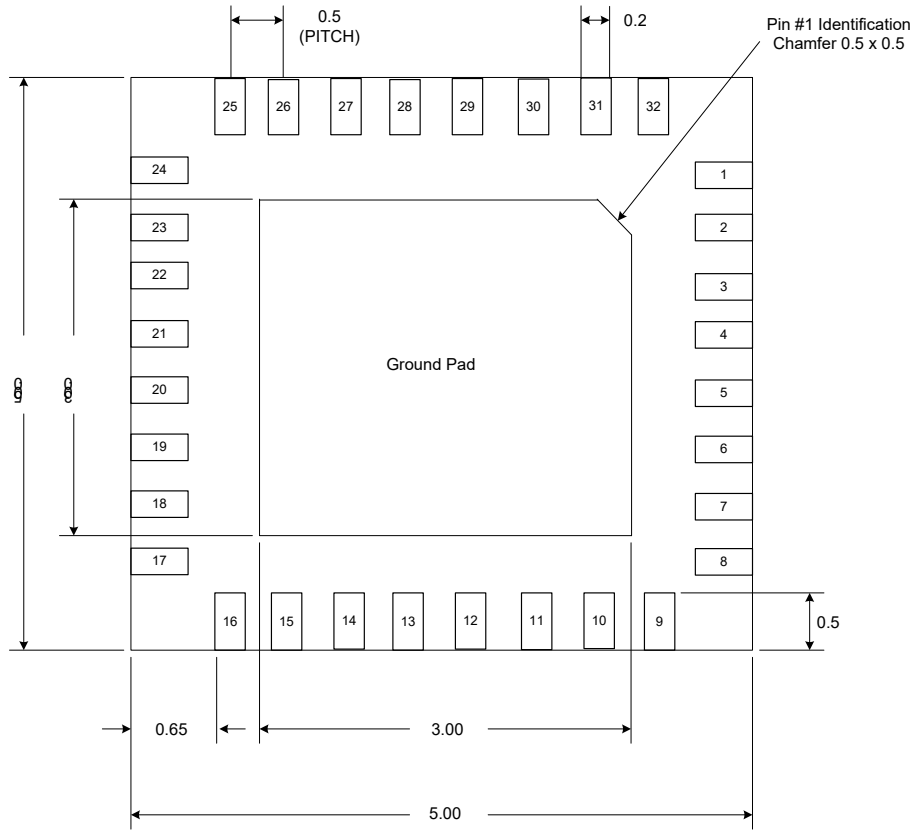
Parameter	Units	Typical Data
Frequency Range	GHz	27-33
Gain (Typ)	dB	25
Gain Flatness (Typ)	+/-dB	1.5
Input RL(Typ)	dB	10
Output RL(Typ)	dB	10
VdeR	V	0.90
VdeO @29.5GHz, @ Po = +20dBm	V	0.85
@ Po = +35dBm	V	0.49
Output P1dB(Typ)	dBm	33
Output P3dB(Typ)	dBm	35
Thermal Resistance	°C/W	3.8
Operating Current at P1dB(Typ)	mA	2300

Package Pin-out:

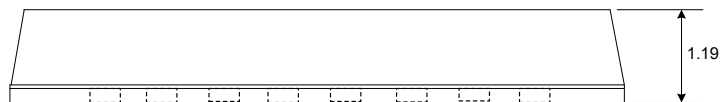


Pin	Description
4	RF Input
21	RF Output
10	Vg
31	Vd1
29	Vd2
28	Vd3
15, 26	Vd4
11	VdeR
12	VdeO
1, 3, 5, 8, 9, 16, 17, 20, 22, 24, 25, 32, 33	Ground
2, 6, 7, 11, 12, 13, 14, 18, 19, 23, 27, 30	N/C

Mechanical Information:



BOTTOM VIEW



SIDE VIEW

The units are in [mm].