

Product Features

- High Output Power
P1dB = 40dBm(typ)@2.3GHz
- High Efficiency
- High Power Gain
G1dB = 10dB(typ) @2.3GHz
- High Linearity
- Hermetically sealed package
- Competitive Price

Applications

- Repeater
- RF Sub-Systems
- Base Station
- Converter
- MMDS



Package Type : WP-22

Description

The RT550PD is designed for base stations and cell extenders as 300 ~ 3000MHz.

Absolute Maximum Ratings

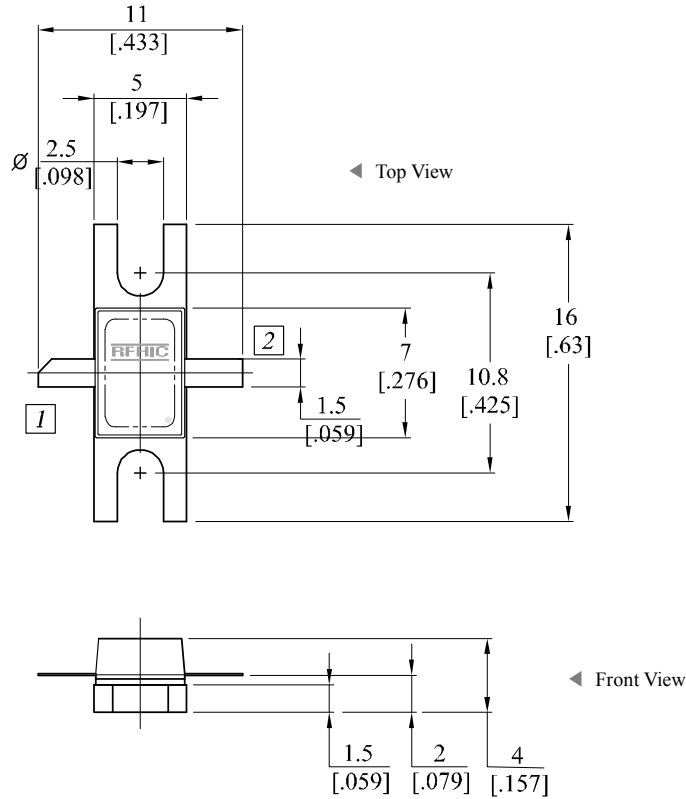
PARAMETER	UNIT	RATING	SYMBOL
Drain to Source Voltage	V	12	Vds
Gate to Source Voltage Range	V	-5~0	Vgs
Power Dissipation	W	37	Pt
Storage Temperature	°C	-65 ~ +200	Tstg
Channel Temperature	°C	175	Tch

Environmental Characteristics @ Ta=+25°C

PARAMETER	UNIT	MIN	TYP	MAX	SYMBOL	CONDITION
Saturated Drain Current	mA	5000	-	6700	Idss	Vds=3V, Vgs=0V Vds=3V, Ids=3600mA Vds=3v, Ids=360mA
Transconductance	mS	-	3300	-	gm	
Pinch-off Voltage	V	-1.6	-1.9	-3.5	Vp	
Breakdown Voltage Gate-Source	V	-20	-	-25	Bvgs	-
Breakdown Voltage Gate-Drain	V	-20	-	-25	Bvgd	-
Output Power @ 1dB G.C.P	dBm	39	40	-	P1dB	Vds=9V, Id=2.4A F=2.3GHz
Linear Power Gain	dB	-	10	-	GLP	
Power added efficiency @ 1dB	%	-	40	-	ηadd	
Thermal Resistance	°C/W	-	4.0	4.5	Rth	-

Package Dimensions (Type: WP-22)

* Unit: mm[inch] | Tolerance ±0.2[.008]



Pin Description			
Pin No	Function	Pin No	Function
1	Gate	2	Drain

* Mounting Configuration Notes

1. Ground / thermal via holes are critical for the proper performance of this device.
2. Add as much copper as possible to inner and outer layers near the part to ensure optimal thermal performance.
3. Mounting screws can be added near the part to fasten the board to a heatsink. Ensure that the ground / thermal via hole region contacts the heatsink.
4. Do not put solder mask on the backside of the PCB in the region where the board contacts the heatsink.
5. RF trace width depends upon the PCB material and construction.
6. Use 1 oz. Copper minimum.

Revision History

Part Number	Release Date	Version	Modification	Data Sheet Status
RT230PD	2012.2.18	5.2	-	-

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