

2731-200P

200W PSM - PLUG AND PLAY

- For S-Band Pulsed Radar Application

200 Watts - 200μs, 10%, 36V S-Band Pulsed Radar 2700 - 3100 MHz

- Easy To Use -50Ω Plug-and-Play
- Reduce Design Cycle Time
- Improve System Performance
- Reduce System Size and Components

GENERAL DESCRIPTION

The 2731-200P is a 50 ohm matched Power Solution Module (PSM), consists of two common base high power transistors, for S-Band pulsed Radar systems. This PSM is capable of providing 200 Watts of pulsed RF output power at two hundreds microsecond pulse width ten percent duty factor across 2700-3100 MHz. This PSM is designed with the plug-n-play concept which is extremely user friendly and requires no additional tuning and impedance matching from the customer. Mechanical Size is 2" x 1.41" x 0.21"

ELECTRICAL CHARACTERISTICS @ 25 °C, Pulse Width=200us, 10%

Symbol	Characteristics	Test Conditions	Min	Тур	Max	Units
PIn	Input Power	Vcc=36V, Pout=200W, Freq=2.7 to 3.1 GHz	27.0	32.0	35.6	W
Gp	Power Gain	Vcc=36V, Pout=200W, Freq=2.7 to 3.1 GHz	7.5	8.0	8.7	dB
ης	Collector Efficiency	Vcc=36V, Pout=200W, Freq=2.7 to 3.1 GHz	40	45		%
Droop	Pulse Droop	Vcc=36V, Pout=200W, Freq=2.7 to 3.1 GHz		0.2	0.6	dB
R/L	Input Return Loss	Vcc=36V, Pout=200W, Freq=2.7 to 3.1 GHz	7			dB
VSWR-T	Load Mismatch Tolerance	Vcc=36V, Pout=200W, Freq=2.7 to 3.1 GHz			2:1	
Өјс	Thermal Resistance	Pulse Width=200uS, Duty=10%			0.30	°C/W

Typical Test Data:

Frequency	Pout (W)	Pin (W)	Ic (I)	RL (dB)	Nc (%)	G (dB)
2700 MHz	200	30.2	1.25	-9	44	8.2
2900 MHz	200	33.1	1.22	-10	45	8.0
3100 MHz	200	33.2	1.25	-16	44	7.8

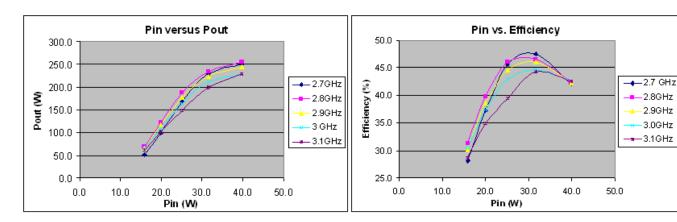
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3.0GHz

Typical RF Performance Curves



2731-200P PSM Outline Drawing

