

3134-200P

200W PSM - PLUG AND PLAY

- For S-Band Pulsed Radar Application

200 Watts - 100 μ s, 10%, 36V
 S-Band Pulsed Radar 3100 - 3400 MHz

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

GENERAL DESCRIPTION

The 3134-200P is a 50 ohm matched Power Solution Module (PSM), consists of two common base high power transistors, for S-Band pulsed Radar application. This PSM is capable of providing 200 Watts of pulsed RF output power at one hundred microsecond pulse width ten percent duty factor across the band 3100-3400 MHz. This PSM is designed with plug-and-play concept which is extremely user friendly and requires no additional tuning and impedance matching from the customer. Mechanical Size is 2.4" x 1.4" x 0.21"

ELECTRICAL CHARACTERISTICS @ 25 °C, Pulse Width=100us, 10%

Symbol	Characteristics	Test Conditions	Min	Typ	Max	Units
P _{in}	Input Power	V _{cc} =36V, P _{out} =200W, Freq=3.1 to 3.4 GHz	25	29.5	32	W
G _p	Power Gain	V _{cc} =36V, P _{out} =200W, Freq=3.1 to 3.4 GHz	8.0	8.3	9.0	dB
η_c	Collector Efficiency	V _{cc} =36V, P _{out} =200W, Freq=3.1 to 3.4 GHz	40	45		%
Droop	Pulse Droop	V _{cc} =36V, P _{out} =200W, Freq=3.1 to 3.4 GHz		0.2	0.6	dB
R/L	Input Return Loss	V _{cc} =36V, P _{out} =200W, Freq=3.1 to 3.4 GHz	-8			dB
VSWR-T	Load Mismatch Tolerance	V _{cc} =36V, P _{out} =200W, Freq=3.1 to 3.4 GHz			2.0:1	
Θ_{jc}	Thermal Resistance	Pulse Width=100uS, Duty=10%			0.30	°C/W

Typical Test Data:

Frequency	P _{out} (W)	P _{in} (W)	I _c (A)	RL (dB)	N _c (%)	G (dB)
3100 MHz	200	27.6	1.27	-9	44	8.6
3200 MHz	200	24.6	1.24	-13	45	9.1
3300 MHz	200	25.8	1.23	-23	45	8.9
3400 MHz	200	28.0	1.19	-16	47	8.5

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3134-200P PSM Outline Drawing

