

FEATURES

■ HIGH POWER

P1dB=48.0dBm at 1.96GHz

■ HIGH GAIN

G1dB=13.0dB at 1.96GHz

■ PARTIALLY MATCHED TYPE

■ HERMETICALLY SEALED PACKAGE

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P1dB	VDS= 12V f = 1.96GHz IDSset≒8.0A	dBm	47.0	48.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	12.0	13.0	—
Drain Current	IDS1		A	—	12.0	15.0
Power Added Efficiency	η_{add}		%	—	40	—
Channel Temperature Rise	ΔT_{ch}	(VDS X IDS + Pin – P1dB) X Rth(c-c)	°C	—	—	100

Recommended gate resistance (Rg) : Rg = 30 Ω (Max.)

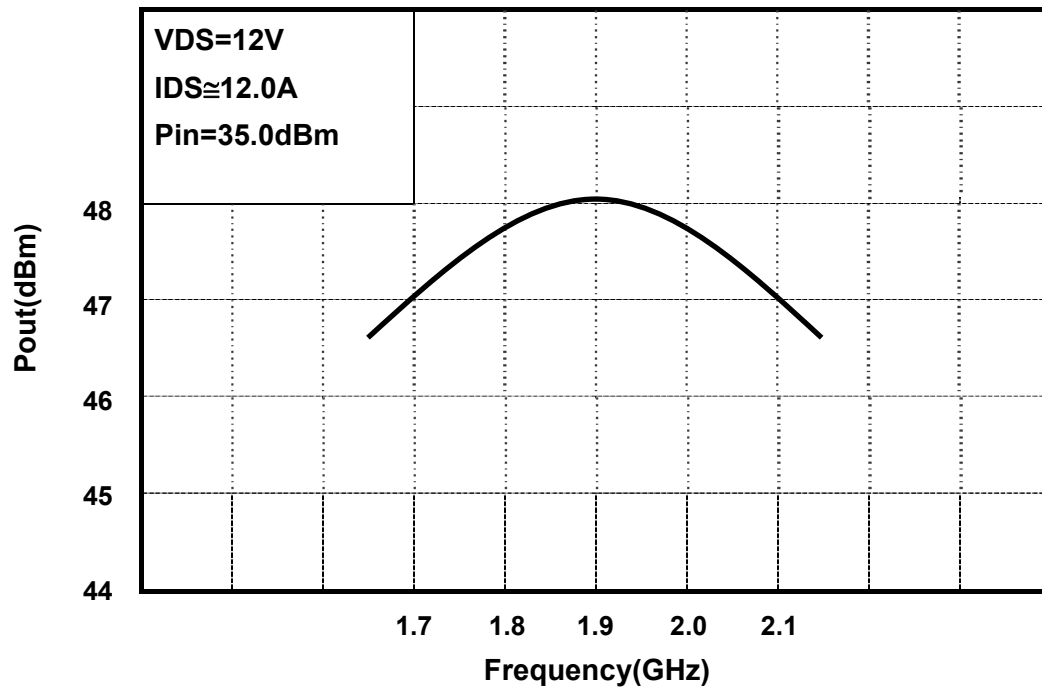
ELECTRICAL CHARACTERISTICS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 12.0A	S	—	20.0	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 300mA	V	-1.0	-1.8	-3.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	38	—
Gate-Source Breakdown Voltage	VGSO	IGS= -10.0mA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	0.6	0.8

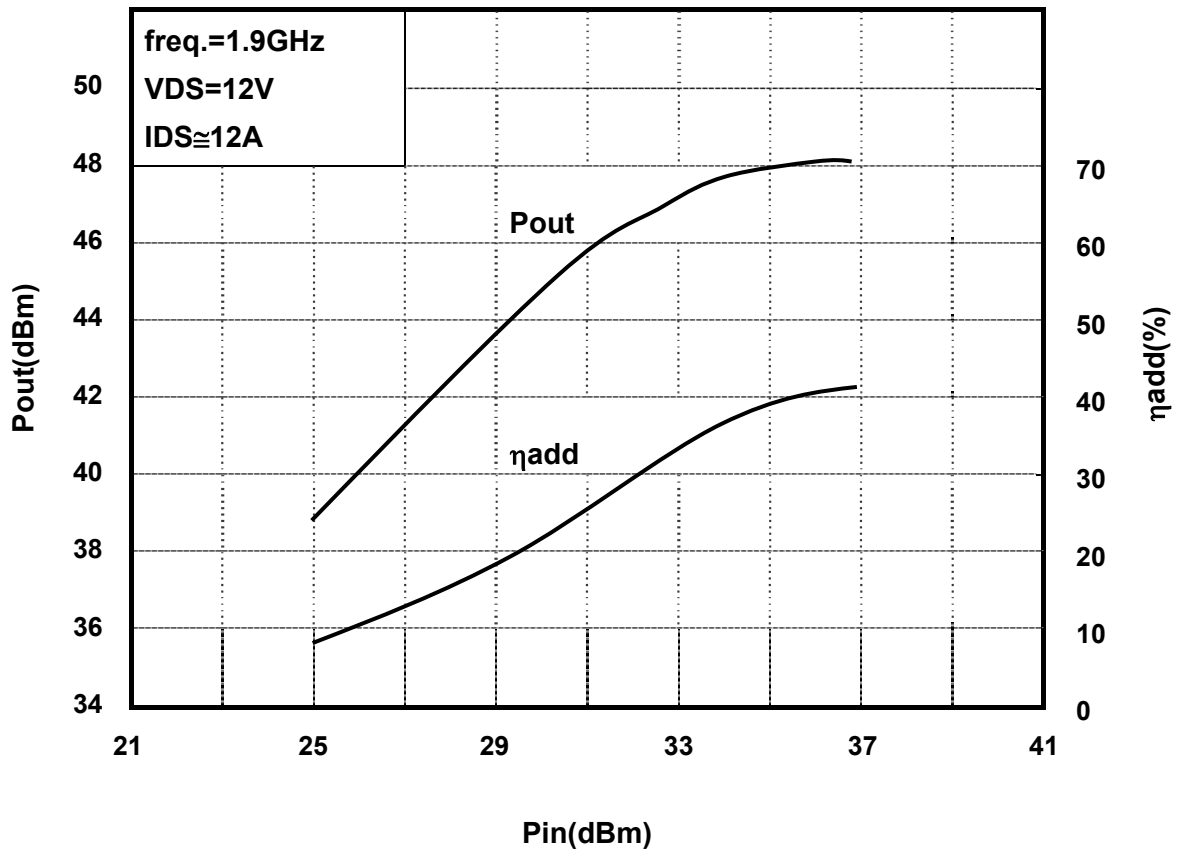
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RF PERFORMANCE

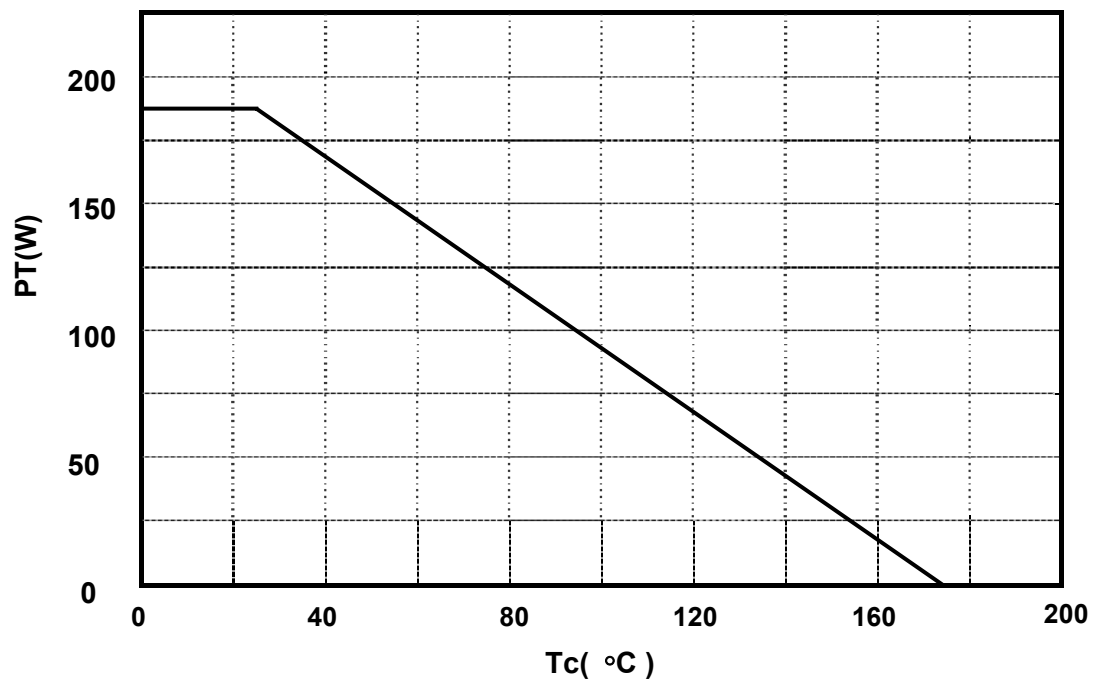
Output Power (Pout) vs. Frequency



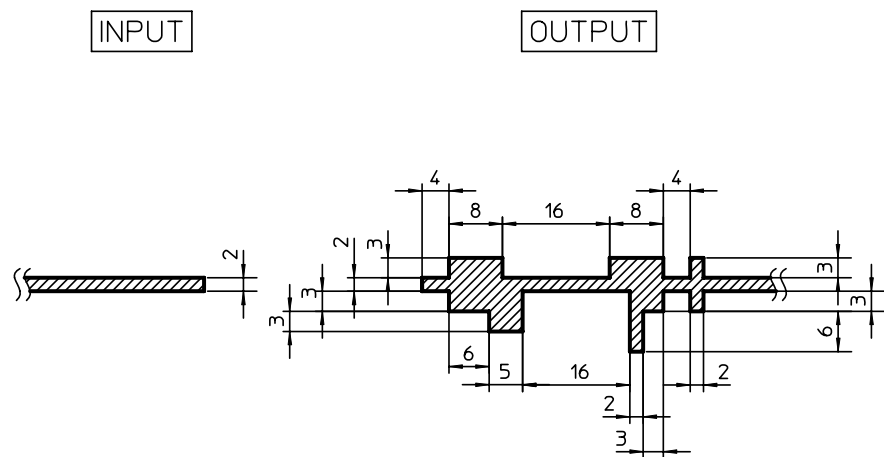
Output Power(Pout) vs. Input Power(Pin)



Power Dissipation(PT) vs. Case Temperature(Tc)



DRAWING OF RECOMMENDABLE MATCHING NETWORK



Unit: mm

Substrate Material: Teflon ($\epsilon_r=2.8$)

Thickness: 0.76mm