1214-370MR4



1214 - 370M

370 Watts - 50 Volts, 330 μs, 10% Radar 1200 - 1400 MHz

GENERAL DESCRIPTION

The 1214-370M is an internally matched, COMMON BASE transistor capable of providing 370 Watts of pulsed RF output power at 330 microseconds pulse width, ten percent duty factor across the band 1200 to 1400 MHz. This hermetically solder-sealed transistor is specifically designed for L-Band radar applications. It utilizes gold metallization and diffused emitter ballasting to provide high reliability and supreme ruggedness.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C¹ 600 Watts

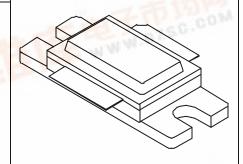
Maximum Voltage and Current

BVces Collector to Emitter Voltage 75 Volts
BVebo Emitter to Base Voltage 3.0 Volts
Ic Collector Current 25 Amps

Maximum Temperatures

Storage Temperature - 65 to + 200°C
Operating Junction Temperature + 200°C

CASE OUTLINE 55ST, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

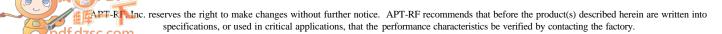
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
Pout	Power Out (Note 2) Pulsed	F = 1200-1400 MHz Vcc = 50 Volts,	370		460	Watts
Pg	Power Gain	Pulse Width = $330 \mu s$	8.7	9.0		dB
hc	Collector Efficiency	Duty = 10 %	50			%
Pd	Pulse Amplitude Droop	As above			0.5	dB
VSWR ¹	Load Mismatch Tolerance	F = 1400MHz, Po =370W	1	43	2:1	MOD

** Design Target

_		- 10		ALM A		
Bvces	Collector to Emitter Breakdown	Ic = 40 mA	75			Volts
Ices	Collector to Emitter Leakage	Vce = 50 Volts			10	mA
Iebo	Emitter to Base Leakage Current	Veb = 3.0 Volts			5	mA
Hfe	DC Current Gain	Vce = 5 V, Ic = 5 A	10	45		
q jc ¹	Thermal Resistance	Rated Pulse Condition			0.29	°C/W

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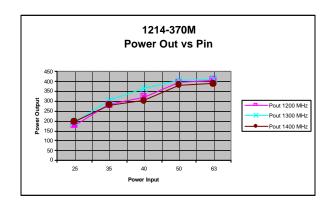
Note 1: Pulse width = 330 us, duty = 10% Note 2: Power Input = 50 Watts Peak Pulsed

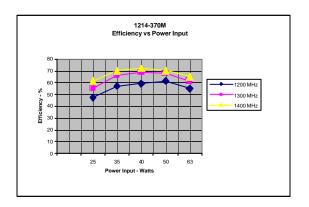


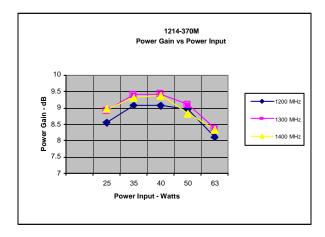


1214-370M

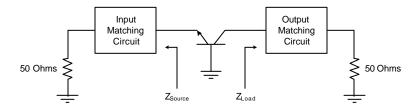
Performance Curves







Impedance Information



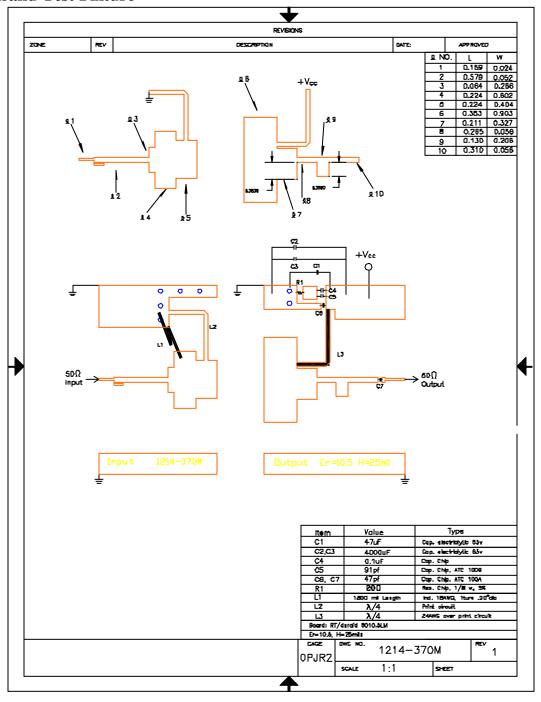
Impedance				
Freq Zs		ZI		
1200	1.75-j2.23	1.52-j2.11		
1300	1.75-j1.63	1.36-j1.97		
1400	1.76-j1.19	1.13-j1.77		

Board Material RT 6010.5 LM 25 Mil TRL Measurement



1214-370M

Broadband Test Fixture





1214-370M

