

## *1214 – 370M*

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

The 1214- capable of microseco 1400 MH2 for L-Band emitter bal	RAL DESCRIPTION 370M is an internally matched, COM 5 providing 370 Watts of pulsed RF ou onds pulse width, ten percent duty factor z. This hermetically solder-sealed trans d radar applications. It utilizes gold me llasting to provide high reliability and s	tput power at 330 or across the band 1200 to sistor is specifically designed etallization and diffused supreme ruggedness.	CASE OUTLINE 55ST, STYLE 1
ABSOL	LUTE MAXIMUM RATIN	JS	
Maximum	Power Dissipation @ 25°C <sup>1</sup>	600 Watts	
	Power Dissipation @ 25°C <sup>1</sup>	600 Watts	
		600 Watts 75 Volts	
Maximun	n Voltage and Current		
<b>Maximun</b> BVces	n Voltage and Current Collector to Emitter Voltage	75 Volts	
<b>Maximun</b> BVces BVebo Ic	n Voltage and Current Collector to Emitter Voltage Emitter to Base Voltage	75 Volts 3.0 Volts	
Maximun BVces BVebo Ic Maximun	n Voltage and Current Collector to Emitter Voltage Emitter to Base Voltage Collector Current	75 Volts 3.0 Volts	

## 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 <b>h</b> c Pd VSWR <sup>1</sup>	Power Gain Collector Efficiency Pulse Amplitude Droop Load Mismatch Tolerance	Pulse Width = $330 \mu s$ Duty = $10 \%$ As above F = $1400MHz$ , Po = $370W$	8.7 50	9.0	0.5 2:1	dB % dB
** Design Target						
_						

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		
<b>q</b> jc <sup>1</sup>	Thermal Resistance	Rated Pulse Condition			0.29	°C/W

Issue April 2005

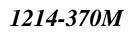
Note 1: Pulse width = 330 us, duty = 10%

Note 2: Power Input = 50 Watts Peak Pulsed

APT-RF, Inc. reserves the right to make changes without further notice. APT-RF recommends that before the product(s) described herein are written into specifications, or used in critical applications, that the performance characteristics be verified by contacting the factory.



## **Performance Curves**



1200 MH

1300 MHz

1400 MHz

1214-370M

Efficiency vs Power Input

60

50

40

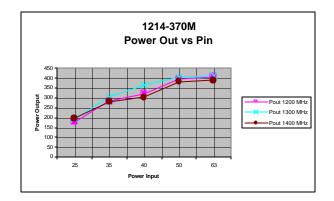
30

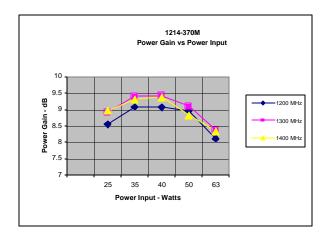
10

25 35 40 50 63

Power Input - Watts

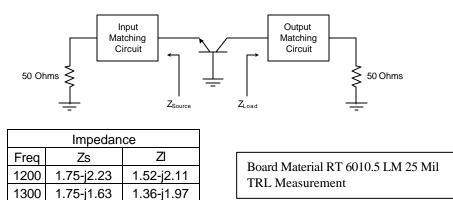
Efficiency





1.13-j1.77

## **Impedance Information**



APT-RF, Inc. reserves the right to make changes without further notice. APT-RF recommends that before the product(s) described herein are written into specifications, or used in critical applications, that the performance characteristics be verified by contacting the factory.

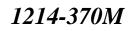
APT-RF, Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 TEL. 408-986-8031 FAX 408-869-2324

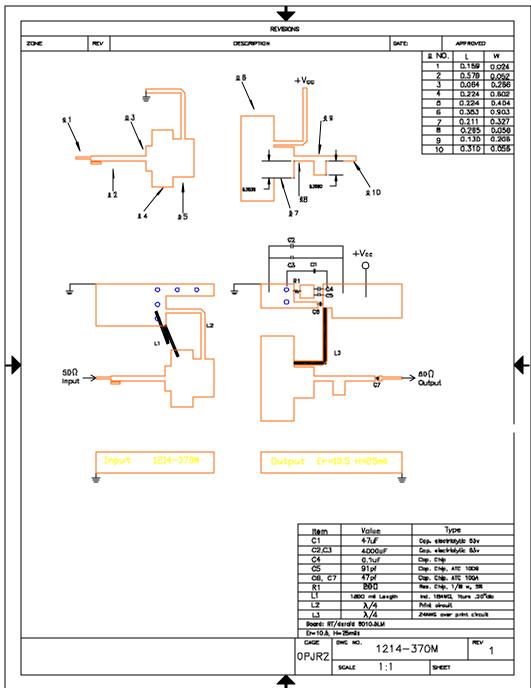
1400

1.76-j1.19



**Broadband Test Fixture** 

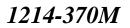


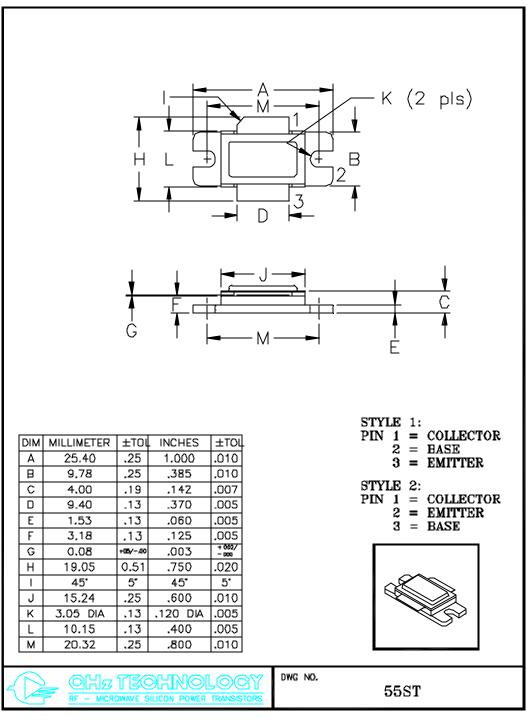


APT-RF, Inc. reserves the right to make changes without further notice. APT-RF recommends that before the product(s) described herein are written into specifications, or used in critical applications, that the performance characteristics be verified by contacting the factory.

APT-RF, Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 TEL. 408-986-8031 FAX 408-869-2324







APT-RF, Inc. reserves the right to make changes without further notice. APT-RF recommends that before the product(s) described herein are written into specifications, or used in critical applications, that the performance characteristics be verified by contacting the factory.

APT-RF, Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 TEL. 408-986-8031 FAX 408-869-2324