

1214 – 370M

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

The 1214- capable of microseco 1400 MHz for L-Band	RAL DESCRIPTION 370M is an internally matched, COM providing 370 Watts of pulsed RF of nds pulse width, ten percent duty fac z. This hermetically solder-sealed tra d radar applications. It utilizes gold n llasting to provide high reliability and	utput power at 330 tor across the band 1200 to insistor is specifically designed netallization and diffused	CASE OUTLINE 55ST, STYLE 1
ABSOI	LUTE MAXIMUM RATIN	GS	\sim
	Power Dissipation @ 25°C ¹	600 Watts	
Maximun	n Voltage and Current		
Maximun BVces	n Voltage and Current Collector to Emitter Voltage	75 Volts	
	0	75 Volts 3.0 Volts	
BVces	Collector to Emitter Voltage		
BVces BVebo Ic	Collector to Emitter Voltage Emitter to Base Voltage	3.0 Volts	
BVces BVebo Ic Maximum	Collector to Emitter Voltage Emitter to Base Voltage Collector Current	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 ηc Pd VSWR ¹	Power Gain Collector Efficiency Pulse Amplitude Droop Load Mismatch Tolerance	Pulse Width = $330 \mu s$ Duty = 10% As above F = 1400 MHz, Po = 370 W	8.7 50	9.0	0.5 2:1	dB % dB	
** Design Target							
Byces	Collector to Emitter Breakdown	$I_{c} = 40 \text{ mA}$	75			Volts	

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		
$\boldsymbol{\theta}\mathbf{j}\mathbf{c}^{1}$	Thermal Resistance	Rated Pulse Condition			0.29	°C/W

Issue April 2005

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

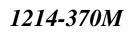
Note 2: Power Input = 50 Watts Peak Pulsed

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.

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Performance Curves



1200 MH:

1300 MHz

1400 MHz

1214-370M

Efficiency vs Power Input

19

50

40

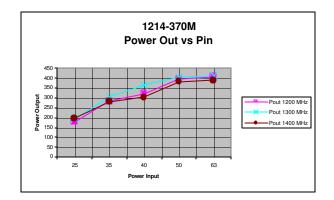
30

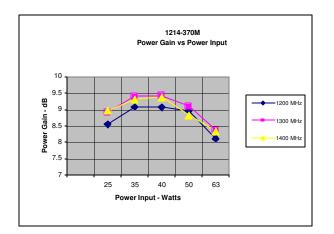
10

25 35 40 50 63

Power Input - Watts

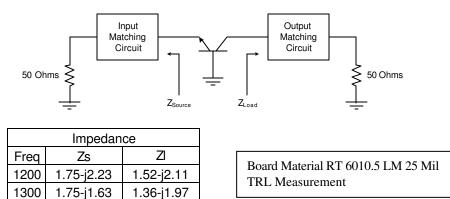
Efficiency

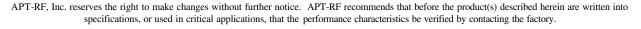




1.13-j1.77

Impedance Information





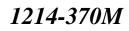
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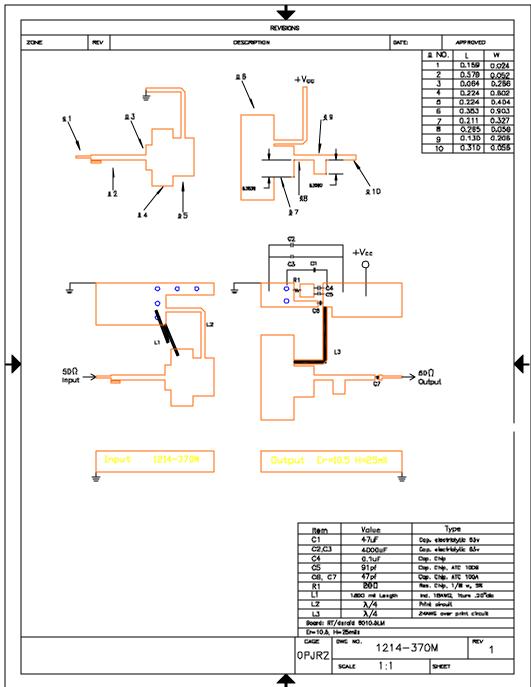
1.76-j1.19

1400



Broadband Test Fixture

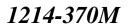


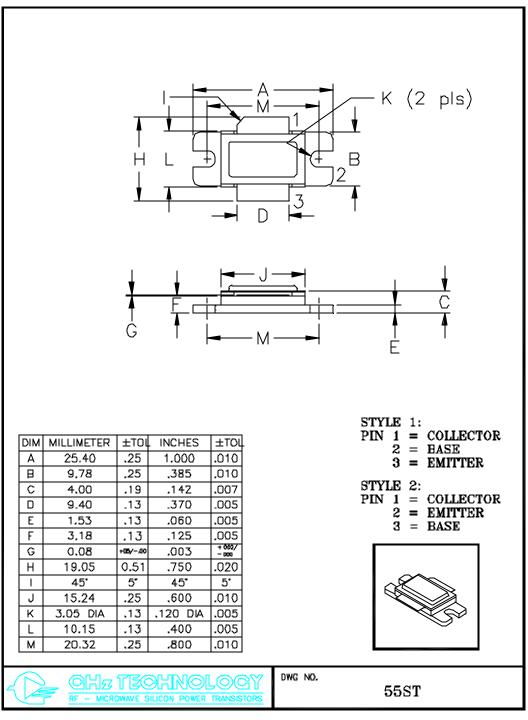


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