

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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0912-7

7 Watts, 50 Volts, Pulsed Avionics 960 - 1215 MHz

GENERAL DESCRIPTION

The 0912-7 is a COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 960-1215 MHz. The transistor includes input prematch for broadband capability. The device has gold thin-film metallization for proven highest MTTF. Low thermal resistance package reduces junction temperature, extends life.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C² 50 Watts

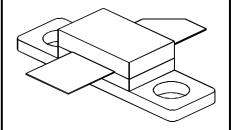
Maximum Voltage and Current

BVcesCollector to Emitter Voltage60 VoltsBVeboEmitter to Base Voltage4.0 VoltsIcCollector Current1.0 Amps

Maximum Temperatures

Storage Temperature - 65 to + 150 °C
Operating Junction Temperature + 200 °C

CASE OUTLINE 55CX, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout Pin Pg η _c	Power Out Power Input Power Gain Collector Efficiency (1090 MHz)	F = 960-1215 MHz Vcc = 50 Volts PW = 10 µsec DF = 1%	7 8.5	40	1	Watts Watts d B %
VSWR	Load Mismatch Tolerance	F = 1090 MHz			10:1	

BVebo BVces Cob	Emitter to Base Breakdown Collector to Emitter Breakdown Capacitance Collector to Base	Ie = 10 mA Ic = 20 mA Vcb = 50 V	4 60	6.5	Q	Volts Volts pF
$\mathbf{h_{FE}}$ θ \mathbf{jc}^2	DC - Current Gain Thermal Resistance	Ic= 100 mA, Vcc= 5V	10	0.5	120 3.5	°C/W

Note1: At Rated Power Output and pulse conditions.

2: At rated pulse conditions

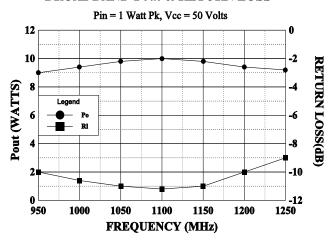
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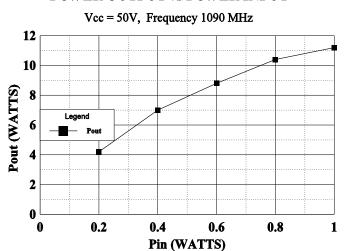
GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120



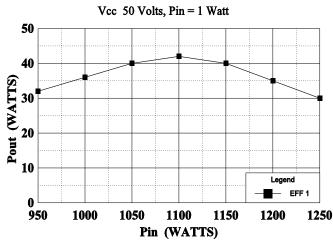
BROADBAND Pout & RETURN LOSS



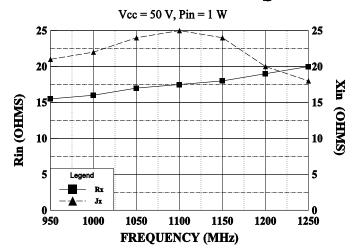
POWER OUTPUT vs POWER INPUT



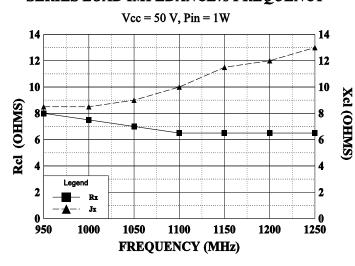
EFFICIENCY vs **FREQUENCY**



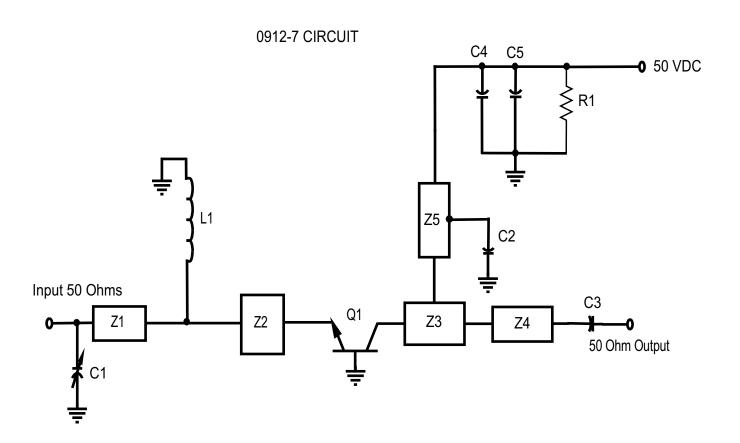
SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCEVS FREQUENCY







PC Board Material .010" Dielectric Teflon Fiberglass

Z1=50 , .062 , =.027"w X .45"L Z2=5 , .033 ,=.43"w X .23"L

Z3=10 , .06 , =.20"w X .40"L

Z4=50 = .027"w X any convenient length

Z5=50 , .12 , =.027"w X .86"L

C1=Capacitor, .35-3.5pF Piston Trimmer

C2=Capacitor, 47pF ATC

Note: Slide C2 along Z5 for best tuning

C3=Capacitor, 47pF ATC

C4=Capacitor, 100 pF ATC

C5=Capacitor, 12mfd, 75 VDC, Electrolytic

L1=Inductor, #18 wire, 1.5" long

R1=Resistor, 10KW, 1/4W

Q1=Transistor, GHz 0912-7

All electrical lengths taken at 1.09 GHz