

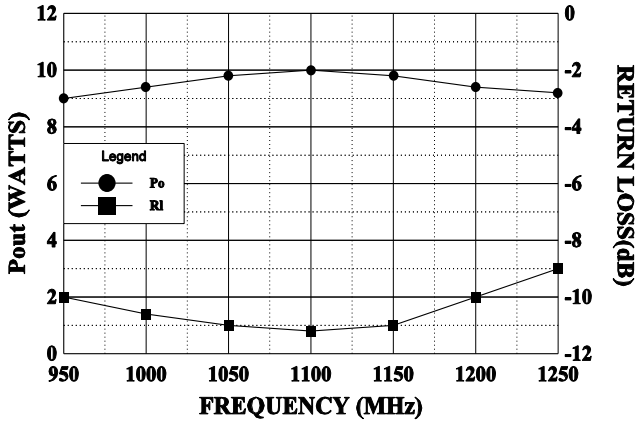


GHz TECHNOLOGY
RF · MICROWAVE · SILICON POWER TRANSISTORS

0912-7

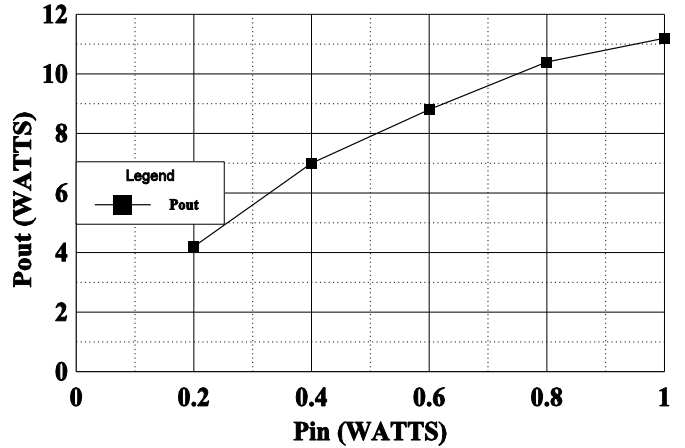
BROADBAND Pout & RETURN LOSS

Pin = 1 Watt Pk, Vcc = 50 Volts



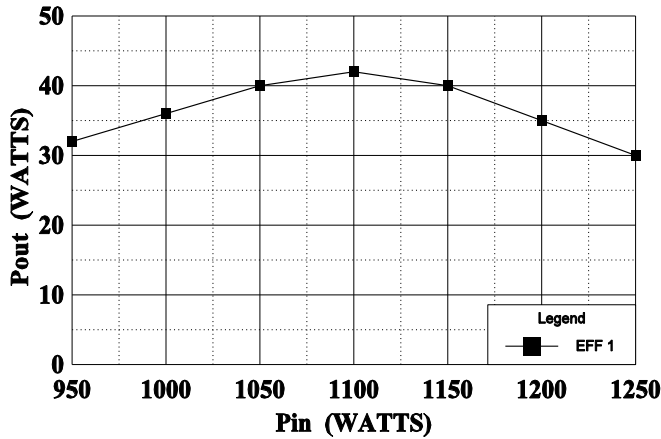
POWER OUTPUT vs POWER INPUT

Vcc = 50V, Frequency 1090 MHz



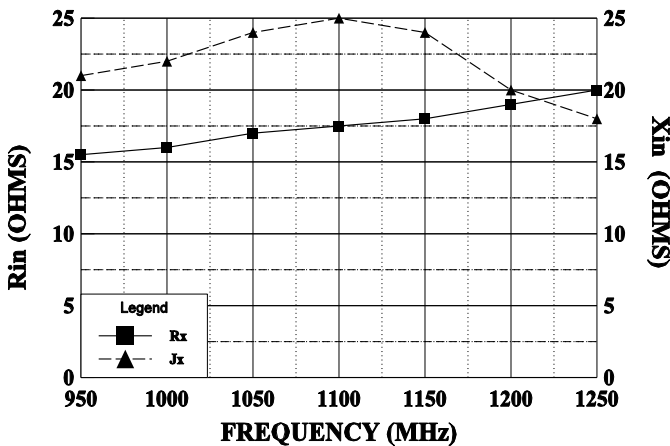
EFFICIENCY vs FREQUENCY

Vcc 50 Volts, Pin = 1 Watt



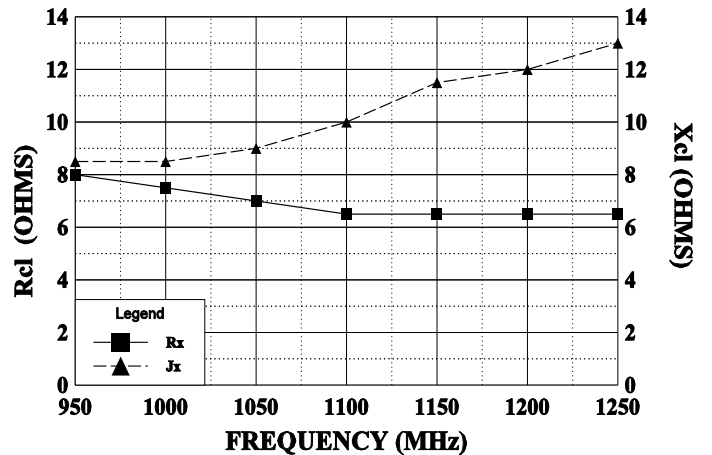
SERIES INPUT IMPEDANCE vs FREQUENCY

Vcc = 50 V, Pin = 1 W

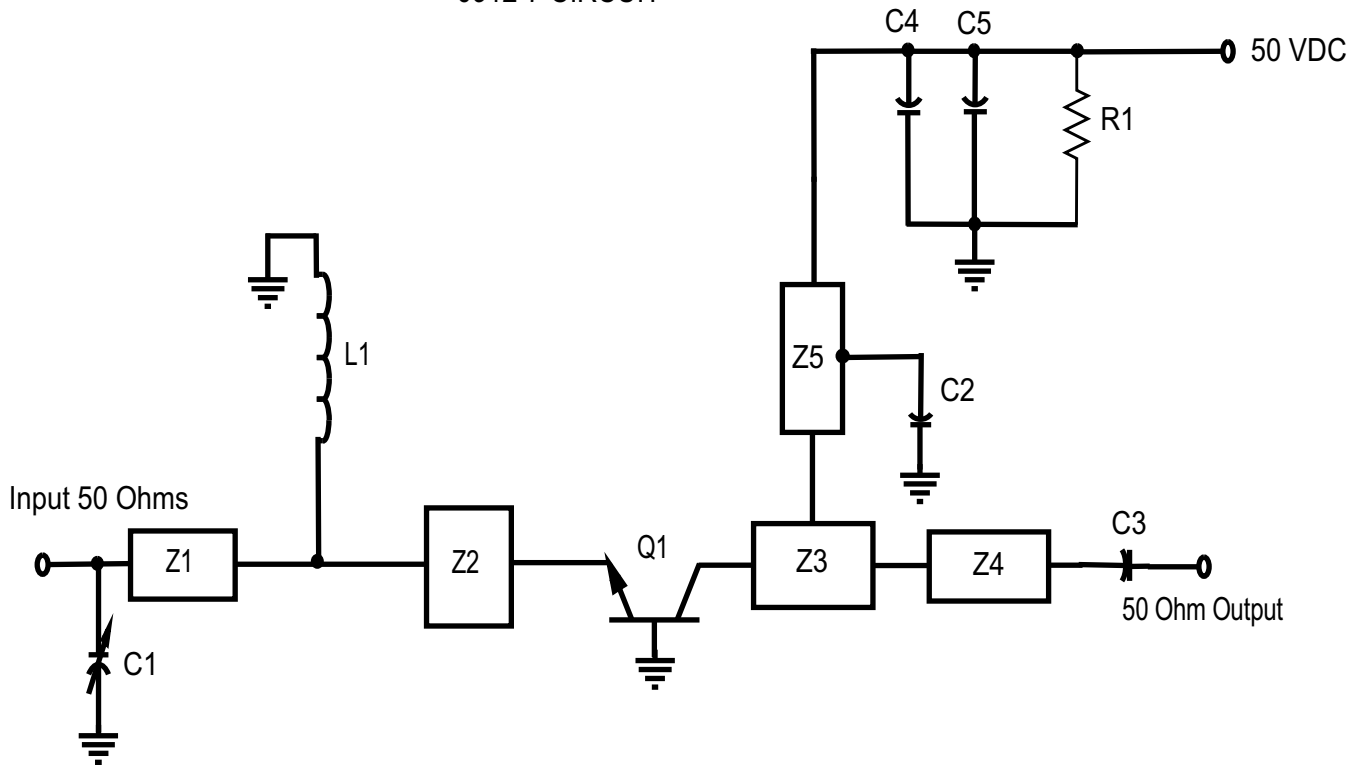


SERIES LOAD IMPEDANCE vs FREQUENCY

Vcc = 50 V, Pin = 1W



0912-7 CIRCUIT



PC Board Material .010" Dielectric Teflon Fiberglass

Z1=50 Ω , .062 λ , =.027" w X .45"L
 Z2=5 Ω , .033 λ , =.43" w X .23"L
 Z3=10 Ω , .06 λ , =.20" w X .40"L
 Z4=50 Ω = .027" w X any convenient length
 Z5=50 Ω , .12 λ , =.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