



0910 – 60M

60 Watts - 40 Volts, 150 μ s, 5%
Radar 890 - 1000 MHz

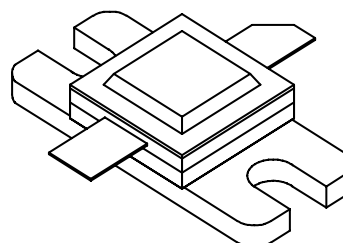
GENERAL DESCRIPTION

The 0910-60M is an internally matched, COMMON BASE transistor capable of providing 60 Watts of pulsed RF output power at 150 μ s pulse width, 5% duty factor across the band 890 to 1000 MHz. This hermetically solder-sealed transistor is specifically designed for P-Band radar applications. It utilizes gold metallization to provide high reliability.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C		180 Watts
Maximum Voltage and Current		
BVces	Collector to Emitter Voltage	65 Volts
BVebo	Emitter to Base Voltage	3.5 Volts
Ic	Collector Current	8 Amps
Maximum Temperatures		
Storage Temperature		- 65 to + 200°C
Operating Junction Temperature		+ 200°C

CASE OUTLINE 55AW-1



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Out	Freq = 890 – 1000 MHz	60		84	Watts
P _g	Power Gain	V _{cc} = 40 Volts	8.0	8.5		dB
η_c	Collector Efficiency	Pin = 9.5 Watts	40	45		%
P _d	Pulse Droop				0.5	dB
R _I	Input Return loss	Pulse Width = 150 μ s				dB
VSWR ¹	Load Mismatch Tolerance	Duty Factor = 5%	-9		3:1	
VSWR _s	Load Mismatch - Stability				2:1	

Note 1: Pulse condition of 150 μ sec, 5%.

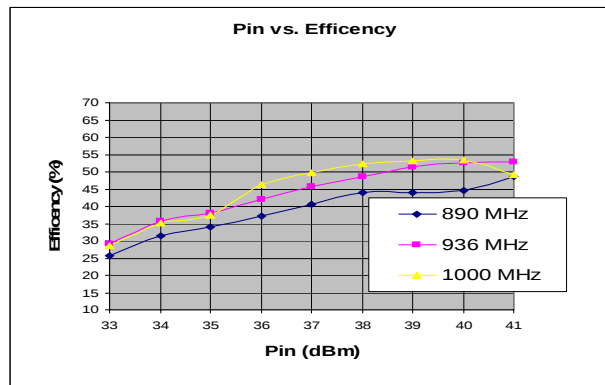
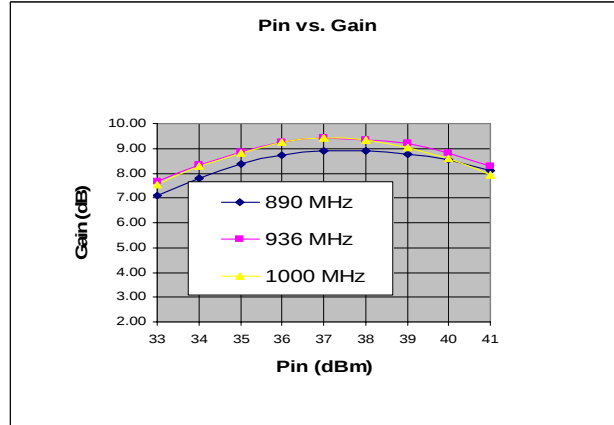
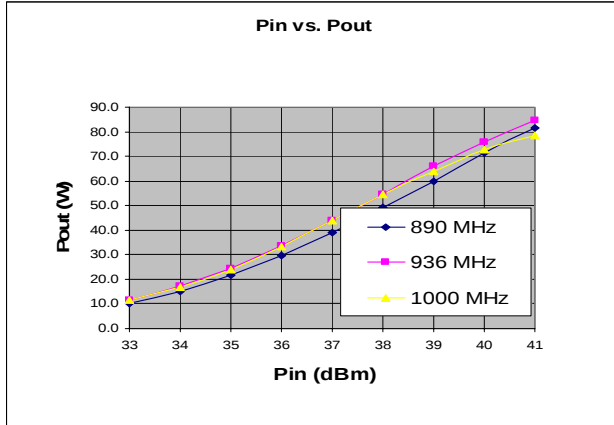
Bvces	Collector to Emitter Breakdown	Ic = 40 mA	65			Volts
Ices	Collector to Emitter Leakage	Vce = 40 Volts			10	mA
Iebo	Emitter to Base Leakage	Vebo = 3.0 Volts			8	mA
θ_{jc}^1	Thermal Resistance	Rated Pulse Condition			1.0	°C/W

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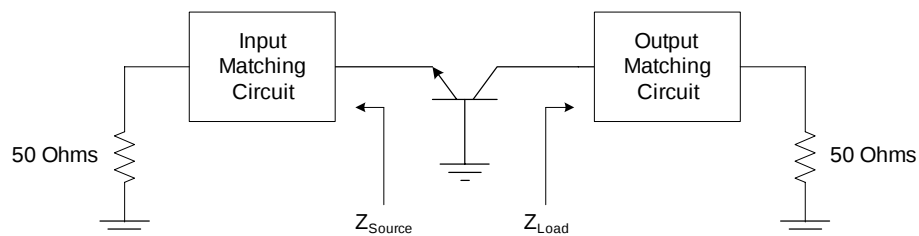


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Performance Curves –



Impedance Information



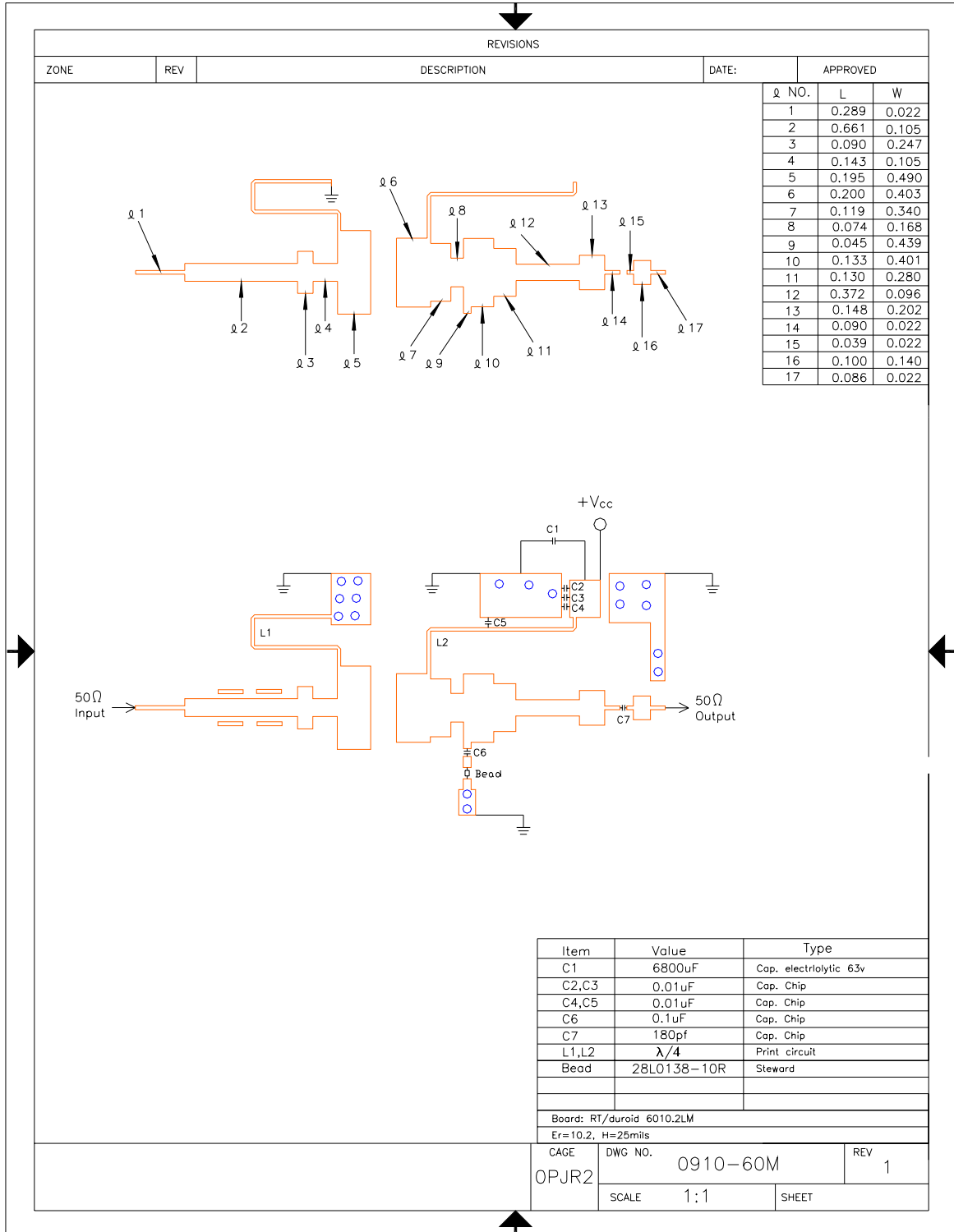
Frequencies (MHz)	$Z_{Source} (\Omega)$	$Z_{Load} (\Omega)^2$
890	4.4-j4.0	2.8-j0.7
937	4.5-j3.3	2.9-j0.0
1000	4.7-j2.5	3.2+j0.95

Note 2: Z_{Load} exclusive of C5, C6 and bead on the test circuit



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Test Circuit





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Case Outline

