



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.

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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

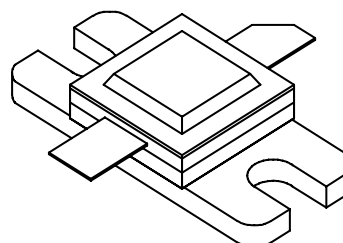
Maximum Temperatures

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	Pulse Width = 150 μ s			0.5	dB
RI	Input Return loss	Duty Factor = 5%	-9			dB
VSWR¹	Load Mismatch Tolerance				3:1	
VSWR_s	Load Mismatch - Stability				2:1	

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

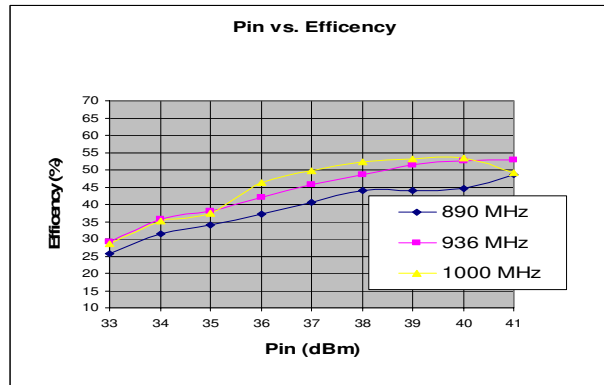
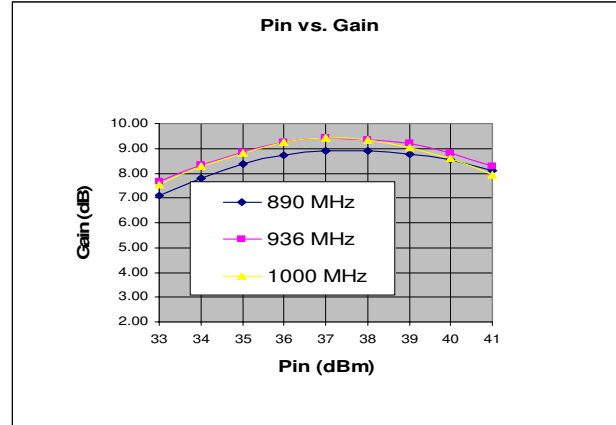
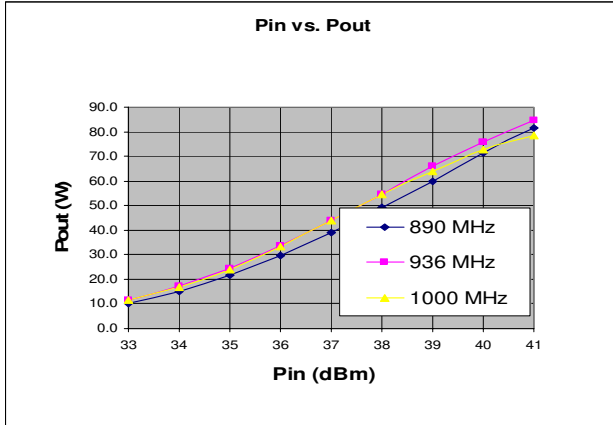
Bvces	Collector to Emitter Breakdown	Ic = 40 mA	65			Volts
Ices	Collector to Emitter Leakage	Vce = 40 Volts			10	mA
Iebo	Emitter to Base Leakage	Vebo = 3.0 Volts			8	mA
θ_{jc}¹	Thermal Resistance	Rated Pulse Condition			1.0	°C/W

Issue December 2005

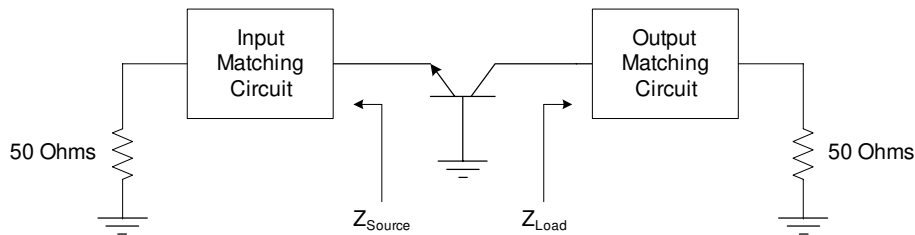


0910-60M

Performance Curves –



Impedance Information



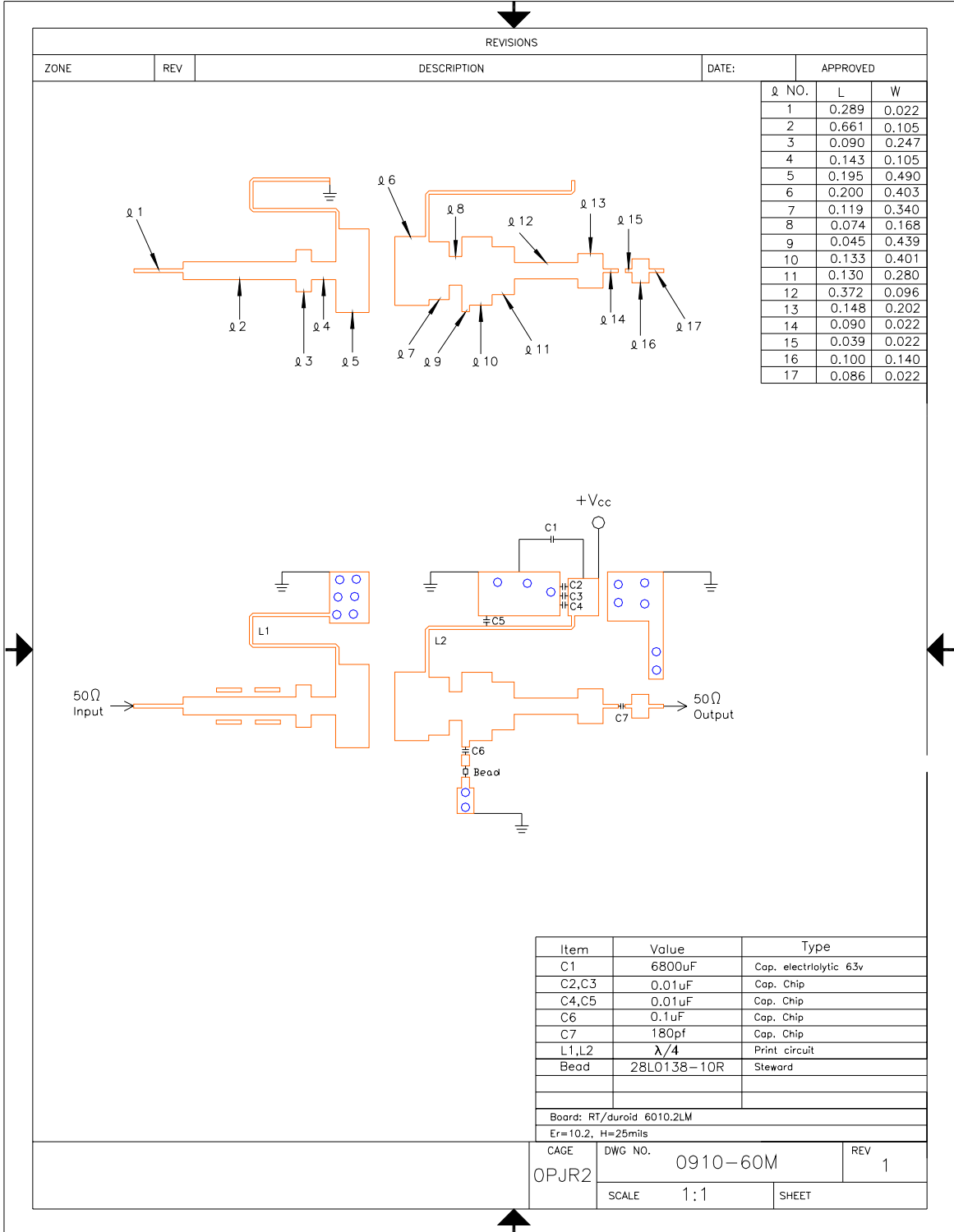
Frequencies (MHz)	$Z_{Source} (\Omega)$	$Z_{Load} (\Omega)^2$
890	4.4-j4.0	2.8-j0.7
937	4.5-j3.3	2.9-j0.0
1000	4.7-j2.5	3.2+j0.95

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



0910-60M

Test Circuit





0910-60M

Case Outline

REVISIONS																																																																										
ZONE	REV	DESCRIPTION	DATE	APPROVED																																																																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DIM</th> <th>MILLIMETER</th> <th>±TOL</th> <th>INCHES</th> <th>±TOL</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>20.32</td> <td>.76</td> <td>.800</td> <td>.050</td> </tr> <tr> <td>B</td> <td>10.16</td> <td>.13</td> <td>.400</td> <td>.005</td> </tr> <tr> <td>C</td> <td>9.78</td> <td>.13</td> <td>.385</td> <td>.005</td> </tr> <tr> <td>D</td> <td>45°</td> <td>5°</td> <td>45°</td> <td>5°</td> </tr> <tr> <td>E</td> <td>3.81</td> <td>.13</td> <td>.150</td> <td>.005</td> </tr> <tr> <td>F</td> <td>1.52</td> <td>.13</td> <td>.060</td> <td>.005</td> </tr> <tr> <td>G</td> <td>1.52R</td> <td>.13</td> <td>.060R</td> <td>.005</td> </tr> <tr> <td>H</td> <td>3.05</td> <td>.13</td> <td>.120</td> <td>.005</td> </tr> <tr> <td>I</td> <td>3.30 DIA</td> <td>.13</td> <td>.130 DIA</td> <td>.005</td> </tr> <tr> <td>J</td> <td>22.86</td> <td>.13</td> <td>.900</td> <td>.005</td> </tr> <tr> <td>K</td> <td>16.51</td> <td>.13</td> <td>.650</td> <td>.005</td> </tr> <tr> <td>M</td> <td>4.70</td> <td>REF</td> <td>.185</td> <td>REF</td> </tr> <tr> <td>N</td> <td>0.13</td> <td>.02</td> <td>.005</td> <td>.001</td> </tr> </tbody> </table>					DIM	MILLIMETER	±TOL	INCHES	±TOL	A	20.32	.76	.800	.050	B	10.16	.13	.400	.005	C	9.78	.13	.385	.005	D	45°	5°	45°	5°	E	3.81	.13	.150	.005	F	1.52	.13	.060	.005	G	1.52R	.13	.060R	.005	H	3.05	.13	.120	.005	I	3.30 DIA	.13	.130 DIA	.005	J	22.86	.13	.900	.005	K	16.51	.13	.650	.005	M	4.70	REF	.185	REF	N	0.13	.02	.005	.001
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