PH1920-33

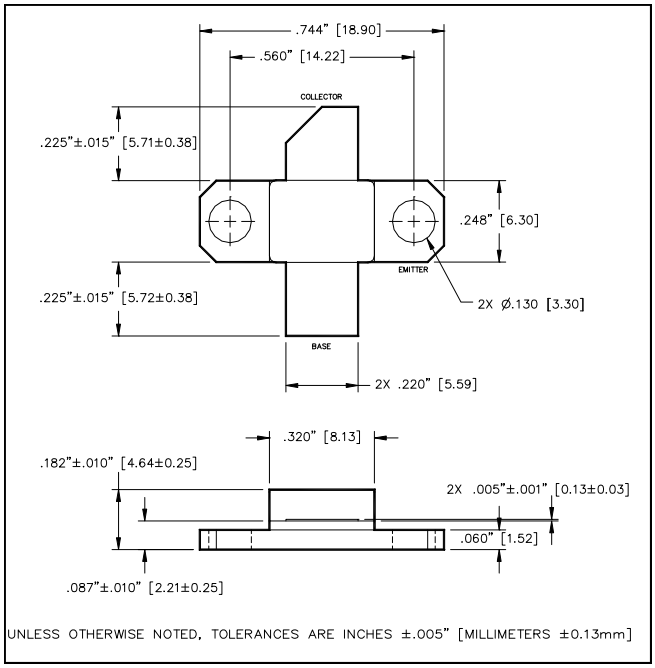
Wireless Bipolar Power Transistor
33W, 1930-1900 MHz

M/A-COM Products
Released - Rev. 08.07

Features

- NPN silicon microwave power transistor
- Common emitter class AB operation
- Internal input and output impedance matching
- Diffused emitter ballasting
- Gold metallization system
- RoHS Compliant

Outline Drawing



ABSOLUTE MAXIMUM RATING AT 25°C

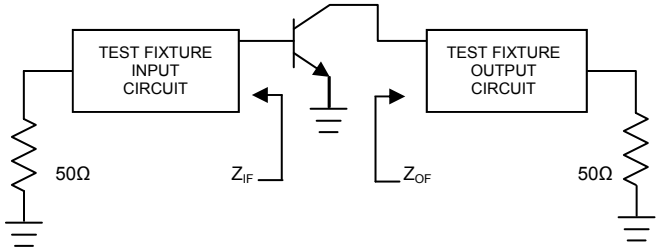
Parameter	Symbol	Rating	Units
Collector-Base Voltage	V_{CBO}	25	V
Collector-Emitter Voltage	V_{CES}	65	V
Emitter-Base Voltage	V_{EBO}	3.0	V
Collector Current	I_C	4.7	A
Power Dissipation	P_D	91	W
Junction Temperature	T_J	200	°C
Storage Temperature	T_{STG}	-55 to + 150	°C
Thermal Resistance	θ_{JC}	1.6	°C/W

ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Symbol	Min	Max	Units	Test Conditions
Power Gain	G_P	7.0	-	dB	V_{CC} = 25V, I_{CQ} = 200 mA, P_{out} = 33 W, F =1930, 1990 MHz
Collector Efficiency	ηC	40	-	%	V_{CC} = 25V, I_{CQ} = 200 mA, P_{out} = 33 W, F =1930, 1990 MHz
Input Return Loss	RL	10	-	dB	V_{CC} = 25V, I_{CQ} = 200 mA, P_{out} = 33 W, F =1930, 1990 MHz
Load Mismatch Tolerance	VSWR	-	2:1	-	V_{CC} = 25V, I_{CQ} = 200 mA, P_{out} = 33 W, F =1930, 1990 MHz

BROADBAND TEST FIXTURE IMPEDANCES

F (GHz)	Z_{IN} (Ω)	Z_{LOAD} (Ω)
1930	2.6 - j2.6	3.3 - j1.1
1960	2.5 - j2.5	3.8 - j1.0
1990	2.4 - j2.3	4.1 - j0.8



- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298
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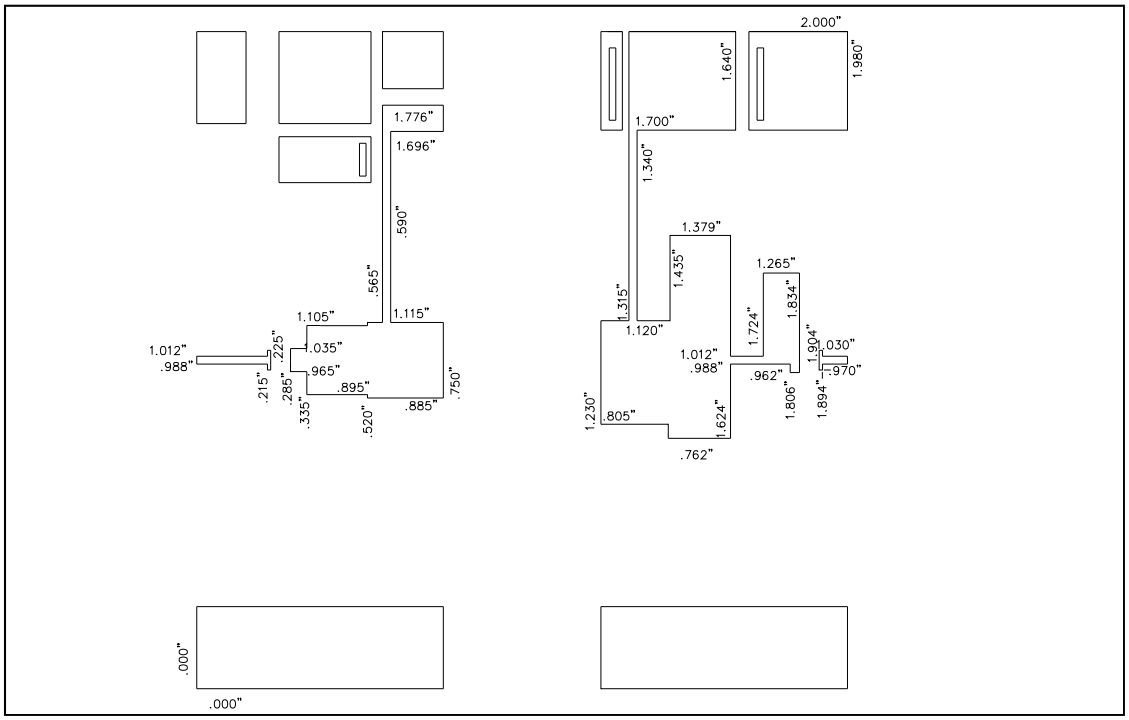
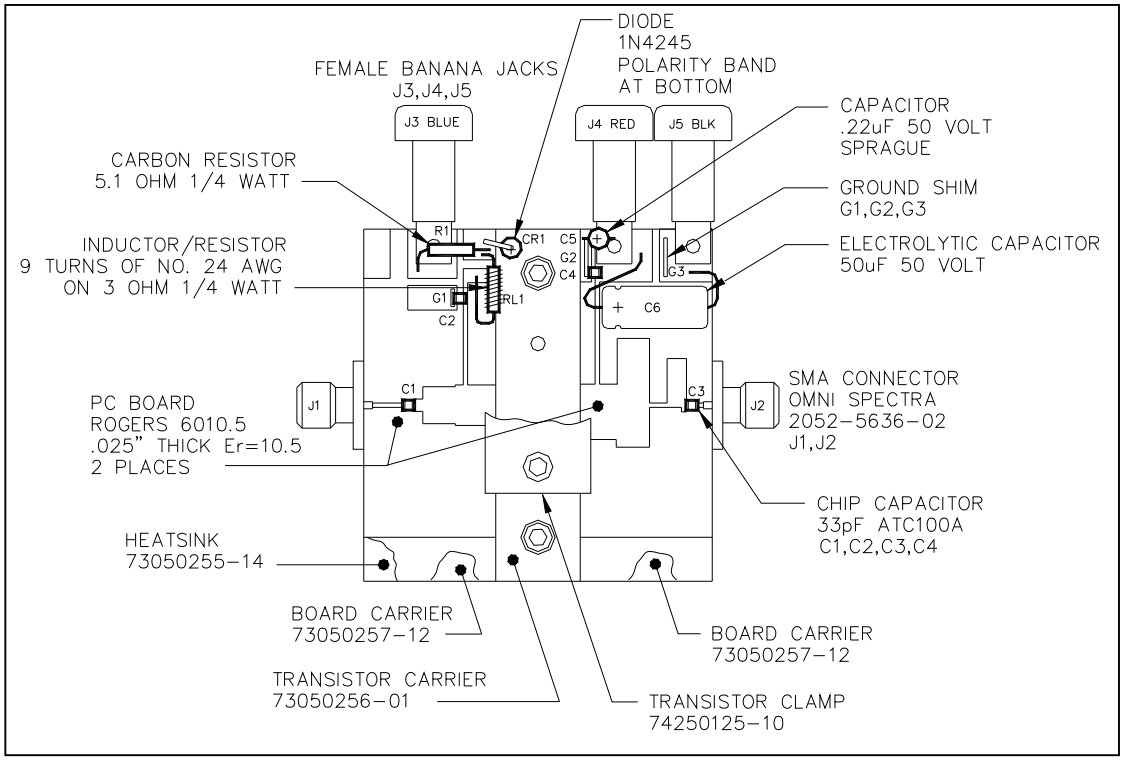
TEST FIXTURE DIMENSIONS



TEST FIXTURE ASSEMBLY



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