

## Wireless Bipolar Power Transistor 33W, 1930-1900 MHz

M/A-COM Products  
Released - Rev. 08.07

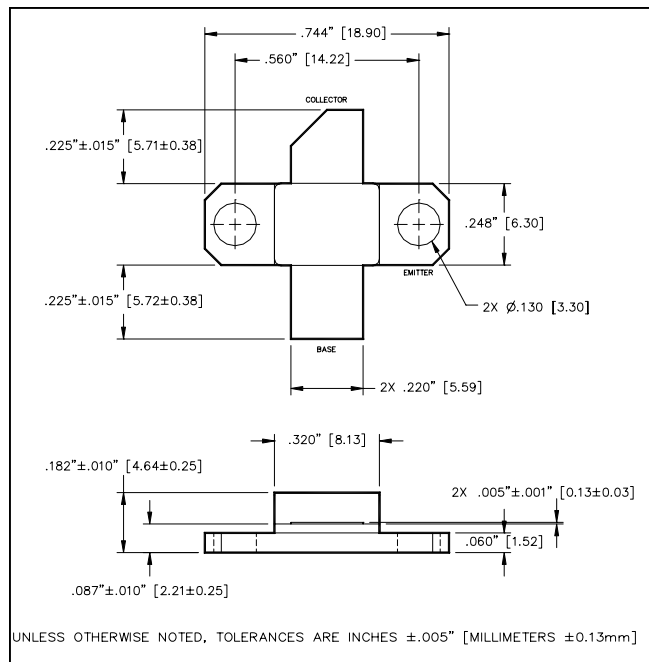
### Features

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

### 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	$\theta_{JC}$	1.6	°C/W

### Outline Drawing

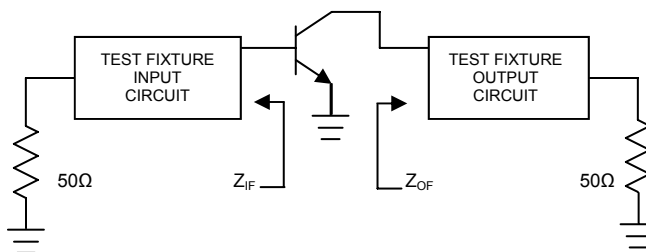


### ELECTRICAL SPECIFICATIONS AT 25°C

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

### BROADBAND TEST FIXTURE IMPEDANCES

F (GHz)	$Z_{IN}$ ( $\Omega$ )	$Z_{LOAD}$ ( $\Omega$ )
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



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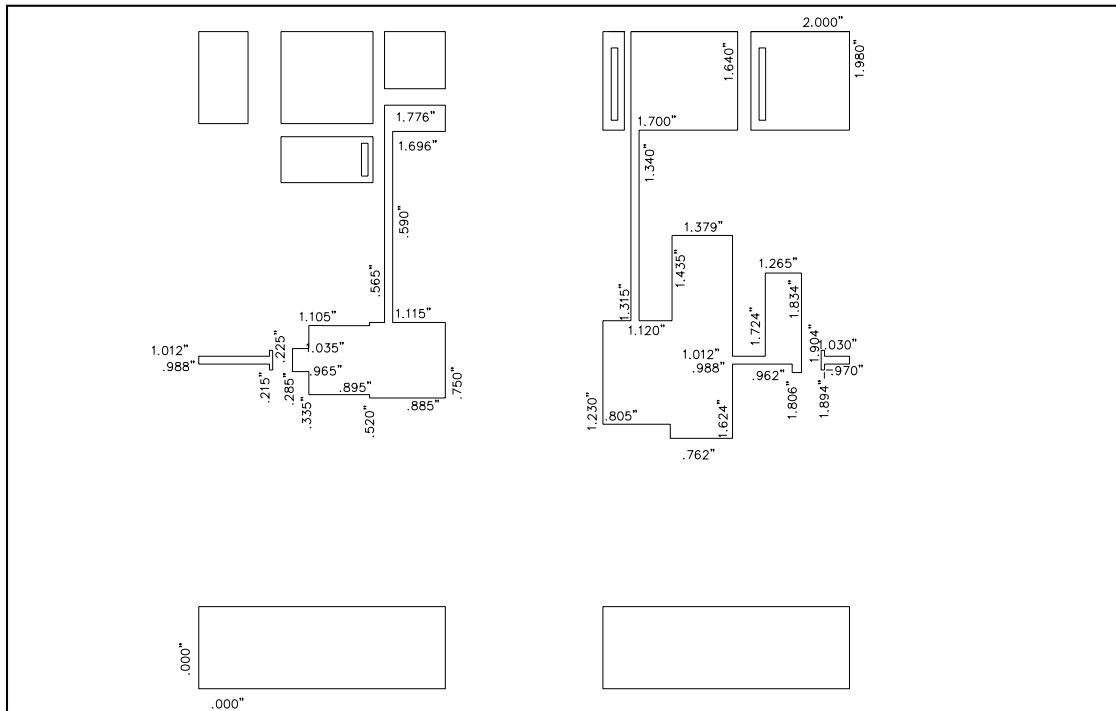
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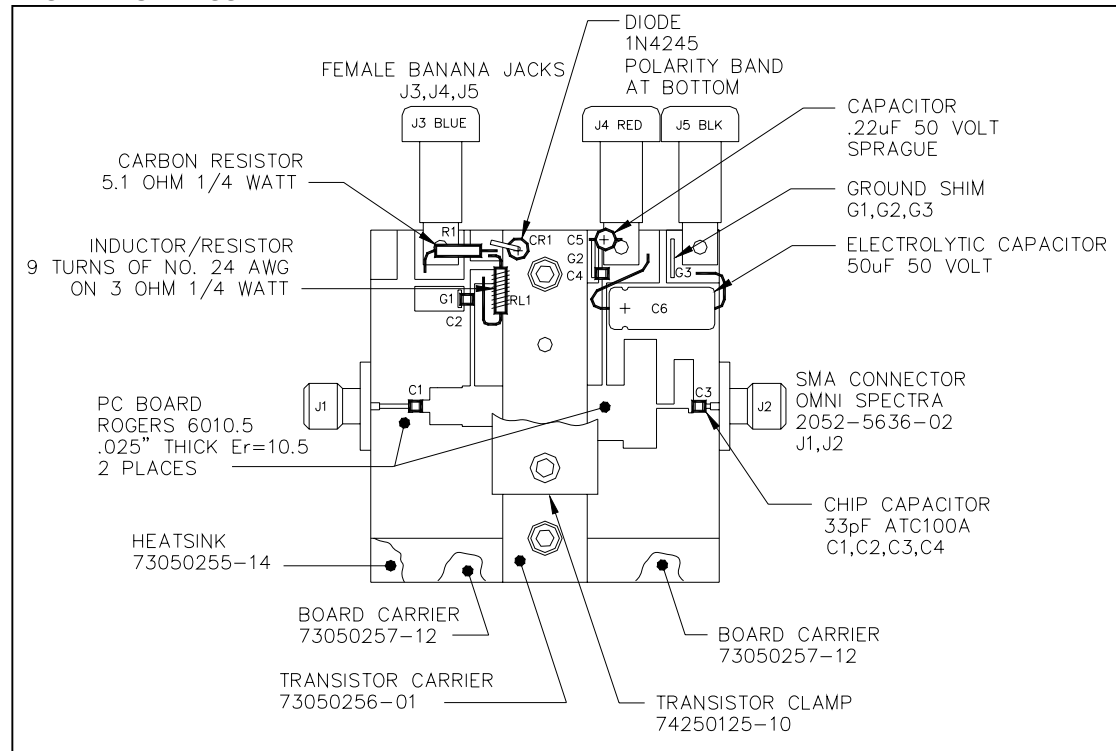
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**TEST FIXTURE DIMENSIONS**



**TEST FIXTURE ASSEMBLY**



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