

Wireless Bipolar Power Transistor 33W, 1805-1880 MHz

M/A-COM Products Released - Rev. 08.07

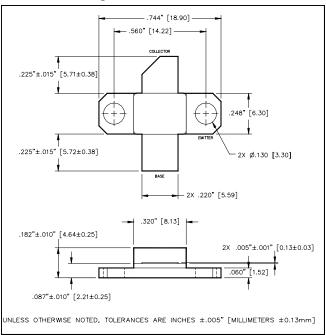
Features

- 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	Α
Power Dissipation	P _D	91	W
Junction Temperature	TJ	200	°C
Storage Temperature	T _{STG}	-55 to + 150	°C
Thermal Resistance	θ_{JC}	3.0	°C/W

Outline Drawing

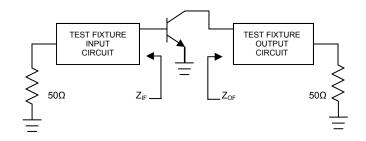


ELECTRICAL SPECIFICATIONS AT 25°C

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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 = 1805, 1880 MHz		
Collector Efficiency	ŋC	40	-	%	V_{CC} = 25V, I_{CQ} = 200 mA, P_{out} = 33 W, F = 1805, 1880 MHz		
Input Return Loss	RL	10	-	dB	V_{CC} = 25V, I_{CQ} = 200 mA, P_{out} = 33 W, F = 1805, 1880 MHz		
Load Mismatch Tolerance	VSWR	-	2:1	-	V_{CC} = 25V, I_{CQ} = 200 mA, P_{out} = 33 W, F = 1805, 1880 MHz		

TYPICAL OPTIMUM DEVICE IMPEDANCES

F (GHz)	Z _{IN} (Ω)	Z _{LOAD} (Ω)
1805	1.8 - j5.5	4.0 - j1.4
1850	1.6 - j5.1	3.9 - j1.4
1880	1.7 - j4.8	4.0 - j0.9



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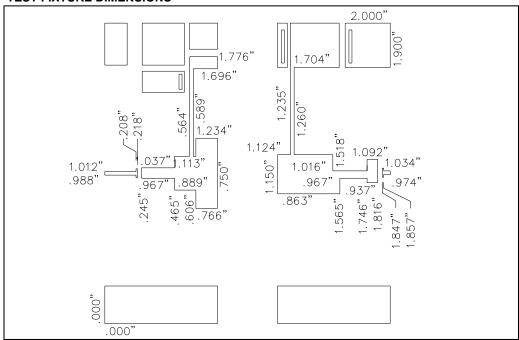
Asia/Pacific Tel: 81.44.844.8296 / Fax: 81.44.844.8298
 Visit www.macomtech.com for additional data sheets and product information.



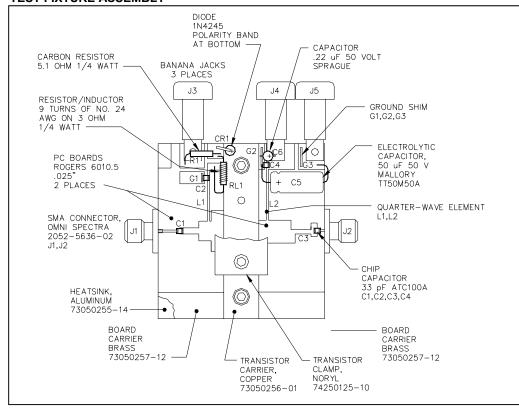
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TEST FIXTURE DIMENSIONS



TEST FIXTURE ASSEMBLY



PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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