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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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PH3135-65M

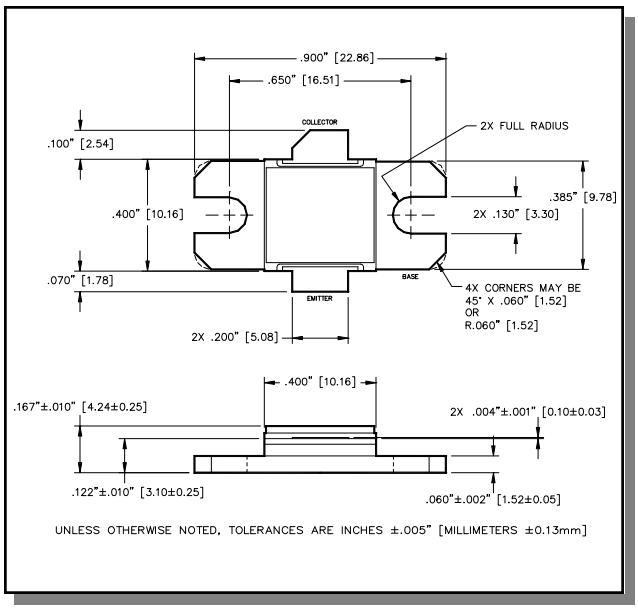
Radar Pulsed Power Transistor
65W, 3.1-3.5 GHz, 100µs Pulse, 10% Duty

M/A-COM Products
Released, 10 Aug 07

Features

- NPN silicon microwave power transistors
- Common base configuration
- Broadband Class C operation
- High efficiency inter-digitized geometry
- Diffused emitter ballasting resistors
- Gold metallization system
- Internal input and output impedance matching
- Hermetic metal/ceramic package
- RoHS compliant

Outline Drawing



Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	V_{CES}	65	V
Emitter-Base Voltage	V_{EBO}	3.0	V
Collector Current (Peak)	I_C	7.7	A
Power Dissipation @ +25°C	P_{TOT}	350	W
Storage Temperature	T_{STG}	-65 to +200	°C
Junction Temperature	T_J	200	°C

Electrical Specifications: T_C = 25 ± 5°C (Room Ambient)

Parameter	Test Conditions	Frequency	Symbol	Min	Max	Units
Collector-Emitter Breakdown Voltage	I_C = 25mA		BV_{CES}	65	-	V
Collector-Emitter Leakage Current	V_{CE} = 36V		I_{CES}	-	5.0	mA
Thermal Resistance	Vcc = 36V, Pout = 65W	F = 3.1, 3.3, 3.5 GHz	$R_{TH(JC)}$	-	0.5	°C/W
Output Power	Vcc = 36V, Pout = 65W	F = 3.1, 3.3, 3.5 GHz	P_{IN}	-	11.6	W
Power Gain	Vcc = 36V, Pout = 65W	F = 3.1, 3.3, 3.5 GHz	G_P	75	-	dB
Collector Efficiency	Vcc = 36V, Pout = 65W	F = 3.1, 3.3, 3.5 GHz	η_C	35	-	%
Input Return Loss	Vcc = 36V, Pout = 65W	F = 3.1, 3.3, 3.5 GHz	RL	-	-6	dB
Load Mismatch Tolerance	Vcc = 36V, Pout = 65W	F = 3.1, 3.3, 3.5 GHz	VSWR-T	-	2:1	-

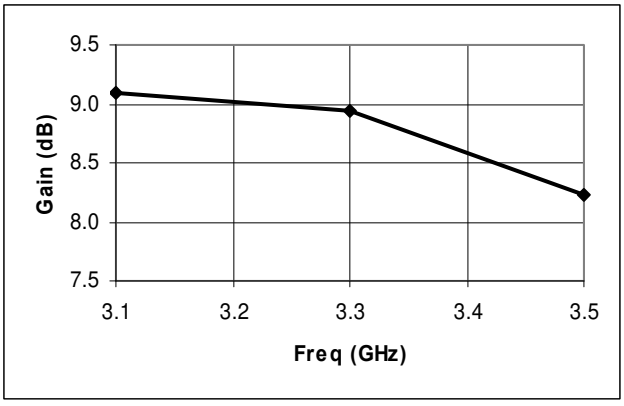
- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
- **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
- **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298

Visit www.macomtech.com for additional data sheets and product information.

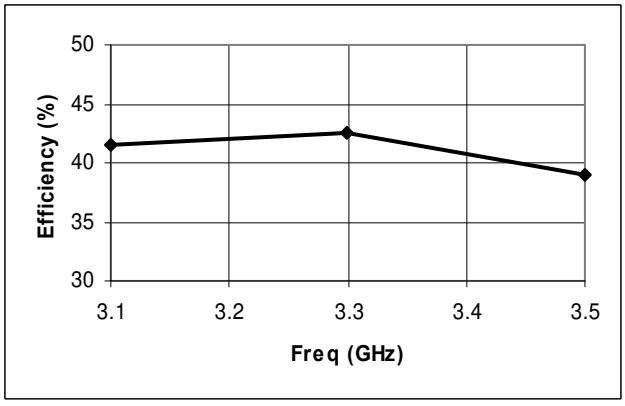
Typical RF Performance

Freq. (GHz)	Pin (W)	Pout (W)	Gain (dB)	Ic (A)	Eff (%)	RL (dB)	VSWR-T (2:1)
3.1	8.0	65	9.09	4.35	41.5	-10.5	P
3.3	8.3	65	8.95	4.24	42.6	-9.8	P
3.5	9.8	65	8.23	4.64	38.9	-17.3	P

Gain vs. Frequency

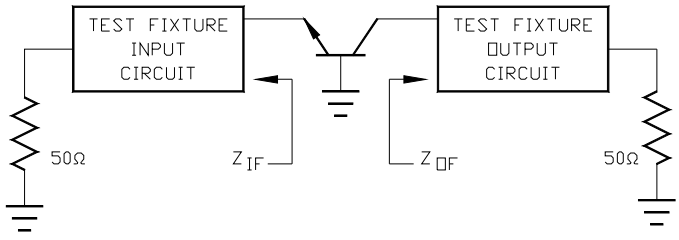


Collector Efficiency vs. Frequency



RF Test Fixture Impedance

F (GHz)	Z_{IF} (Ω)	Z_{OF} (Ω)
3.1	8.9 - j11.2	5.2 - j11.0
3.3	8.7 - j8.6	4.2 - j8.8
3.5	8.6 - j6.0	4.7 - j7.0



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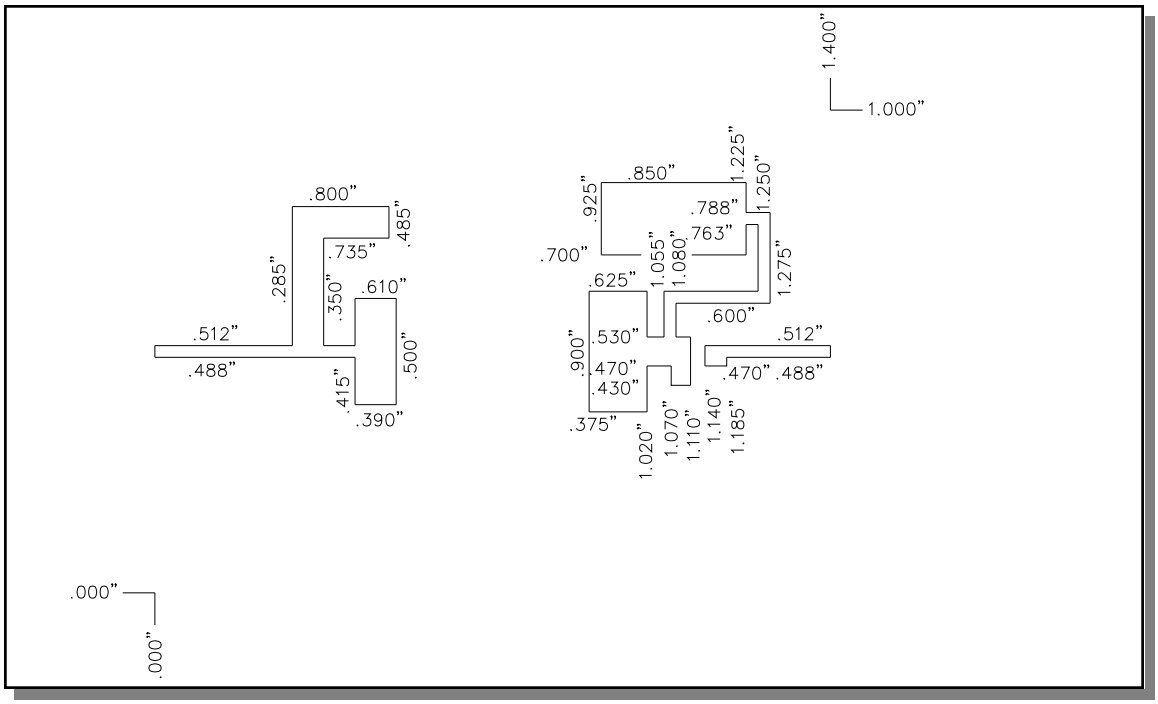
Test Fixture Circuit Dimensions



Test Fixture Assembly