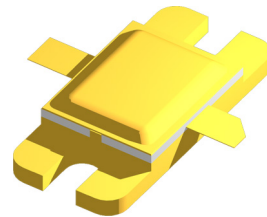


SILICON MICROWAVE POWER TRANSISTOR

PRODUCT DATA SHEET

FEATURES:

- Common Base, Class C Package Configuration
- High Output Power
150 W @ 0.9 to 1.2 GHz
- High Gain Bandwidth Product
 $f_t = 6.0 \text{ GHz @ } I_C = 16.5 \text{ A}$
- High Gain
 $G_{PE} = 7.5 \text{ dB to } 8.2 \text{ dB}$
- High Reliability
Gold Metallization
Nitride Passivation
- Diffused Ballast Resistors
- BeO Packaging
- Built-In Matching Network for Broadband Operation



PERFORMANCE DATA:

- Electrical Characteristics ($T_A = 25^\circ\text{C}$)

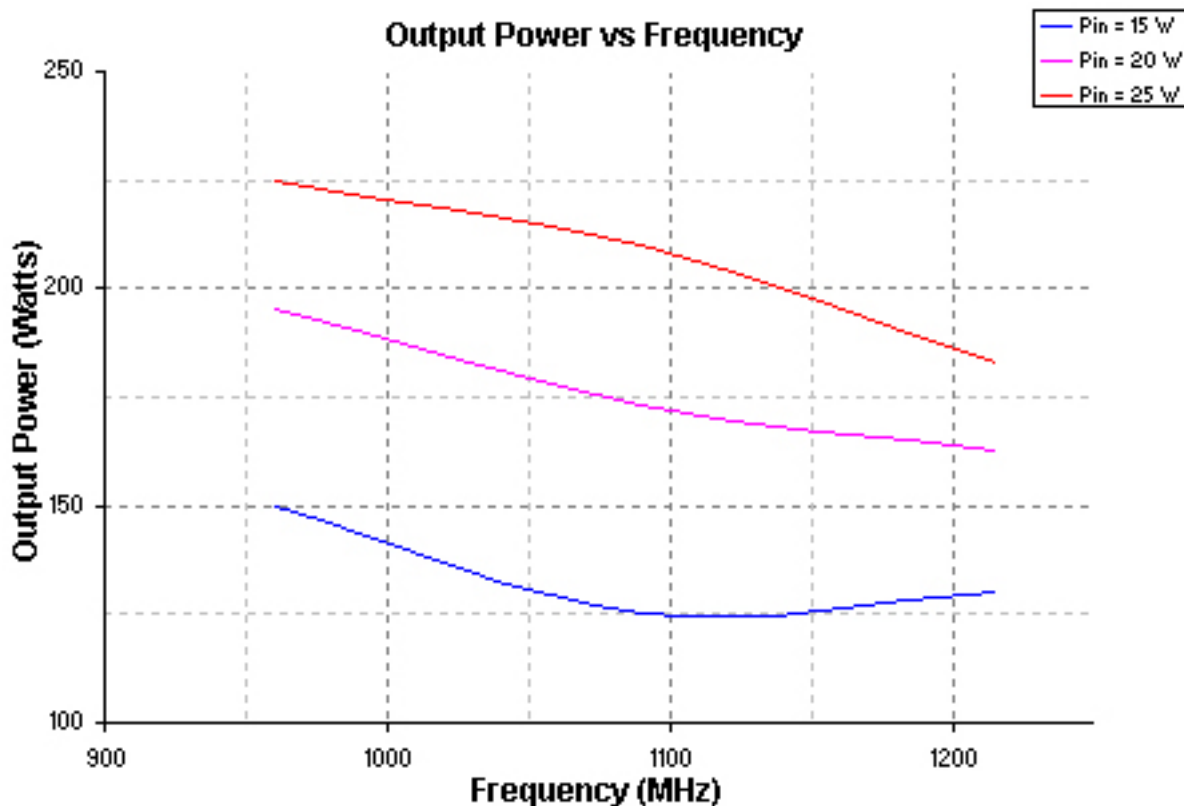
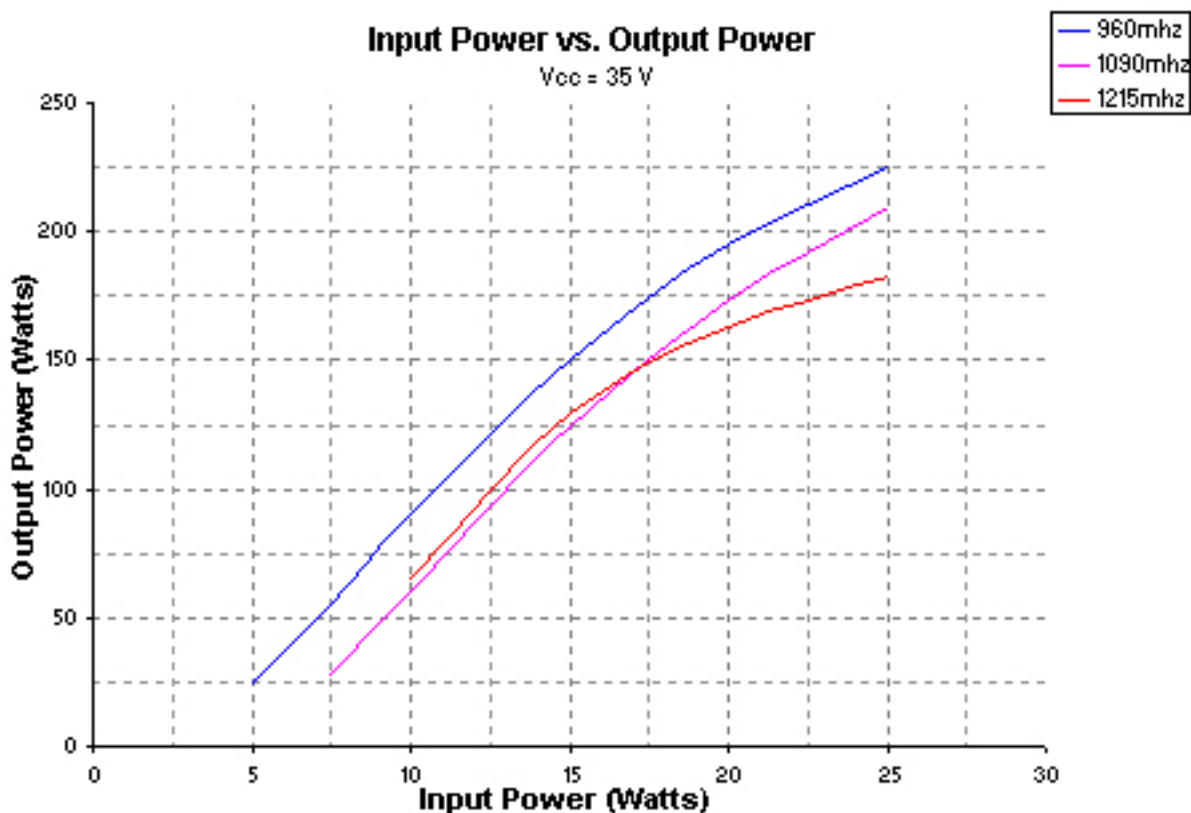
Absolute Maximum Ratings:

SYMBOL	PARAMETERS	RATING	UNITS
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	35	V
V_{EBO}	Emitter-Base Voltage	3.5	V
I_C	Collector Current (instantaneous)	16.5	A
T_J	Junction Temperature	250	$^\circ\text{C}$
T_{STG}	Storage Temperature	-65 to 200	$^\circ\text{C}$
θ_{JC}	Thermal Resistance	0.57	C/W

SYMBOL	PARAMETERS & CONDITIONS $V_{CE} = 35\text{V}, I_C = 16.5 \text{ A}, \text{Class C}$	UNIT	MIN.	TYP.	MAX.
P_{1dB}	Power output at 1 dB compression: $f = 1.4 \text{ GHz}$	W			150
η	Collector Efficiency Class C	%		50	
h_{FE}	Forward Current Transfer Ratio: $V_{CB} = 5\text{V}, I_C = 100 \text{ mA}$		10	60	100
C_{OB}	Output Capacitance: $f = 1 \text{ MHz}, I_E = 0$	pF		4.5	
P_T	Total Power Dissipation	W			300

BIPOLARICS, INC. Part Number BMT0912B150

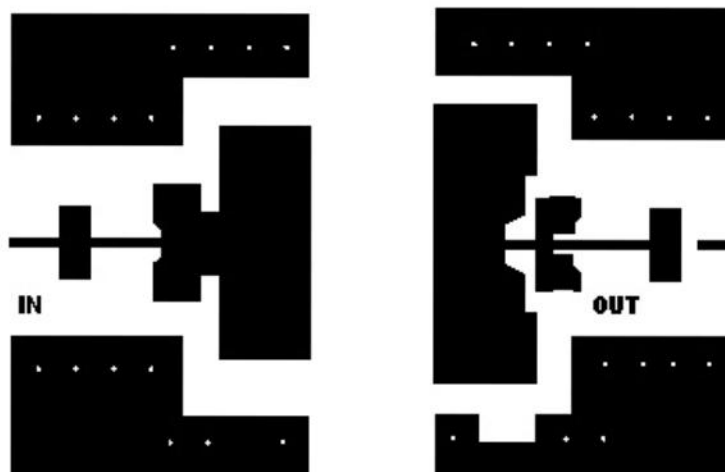
SILICON MICROWAVE POWER TRANSISTOR



BIPOLARICS, INC. Part Number BMT0912B150

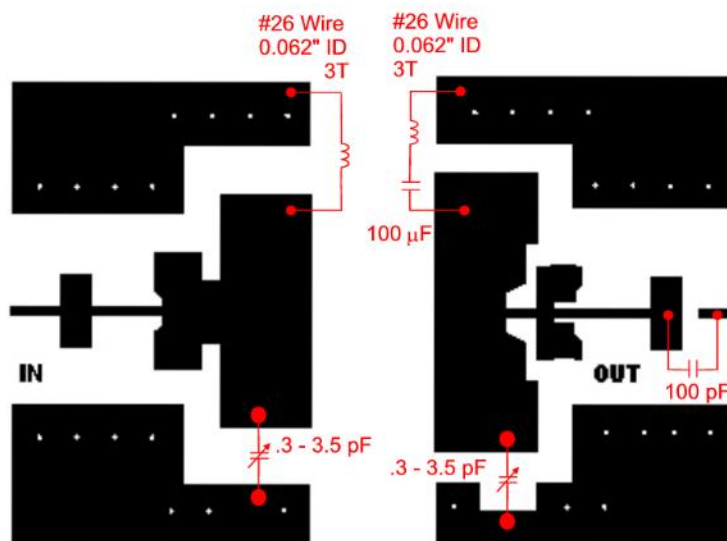
SILICON MICROWAVE POWER TRANSISTOR

Testboard Templatte



Testboard Components

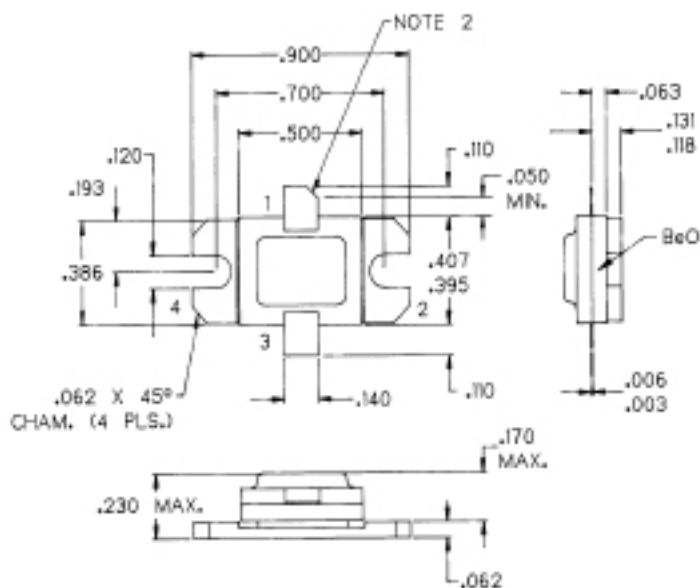
Material: Epsilam 10 EK = 9.6 0.025" thick



BIPOLARICS, INC. Part Number BMT0912B150

SILICON MICROWAVE POWER TRANSISTOR

50 Package: 0.500" x 0.400" 2 Lead Flange



NOTES:
 1. ALL TOLERANCE $\pm .010$ EXCEPT WHERE NOTED;
 DIMENSIONS IN INCHES.
 2. COLLECTOR LEAD CHAMFER 45° NOM. X .040 NOM.

LEAD	1	2	3	4
25 Package	Emitter	Base	Collector	Base

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