

GENERAL DESCRIPTION

The 2015M is an internally matched, common base transistor capable of providing 15 Watts of CW RF output power across the 1000-2000 MHz band. This transistor is specifically designed for telecommunication and microwave amplifier applications. It utilizes gold metallization and diffused ballasting to provide high reliability and supreme ruggedness.

2015M
15 WATTS - 28 VOLTS
2 GHz

MICROWAVE - BIPOLAR

ABSOLUTE MAXIMUM RATINGS

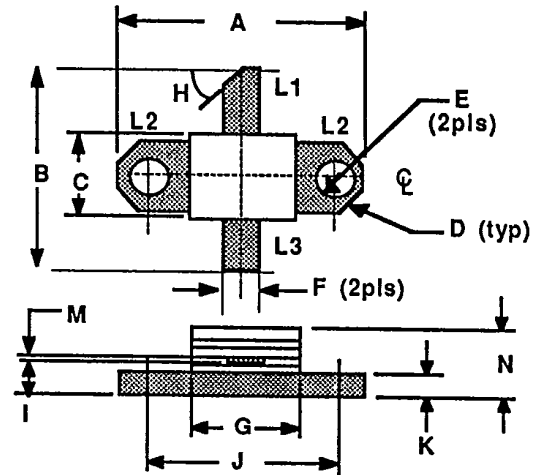
Maximum Power Dissipation @ 25°C Case Temperature 50 W

Maximum Voltage and Current

BVces Collector to Emitter Voltage 50 V
 BVebo Emitter to Base Voltage 3.5 V
 Ic Collector Current 3.0 A

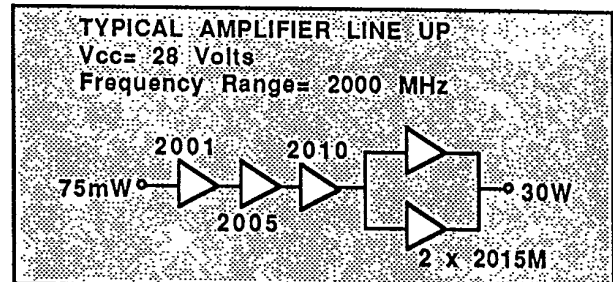
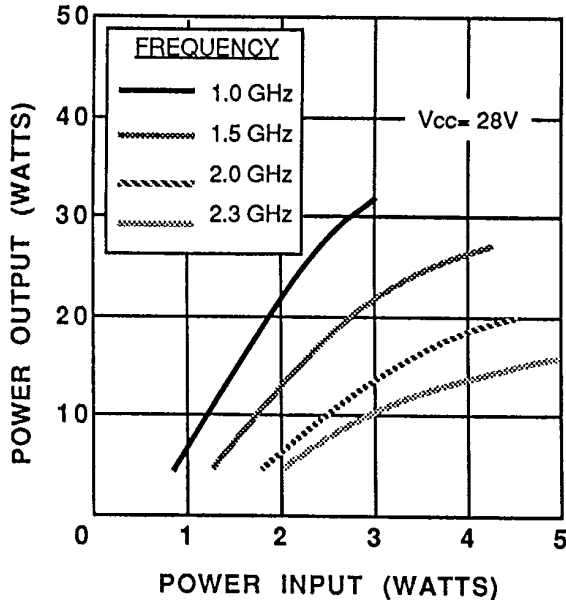
Maximum Temperatures

Storage Temperature -65 to +150 °C
 Operating Junction Temperature +200 °C



DIM	Millimeter	TOL	Inches	TOL	
L1 : C	A	18.90	.13	.744	.005
L2 : B	B	15.00	.76	.590	.030
L3 : E	C	7.37	.13	.290	.005
	D	1.27x45°	.13	.050x45°	.005
	E	3.30 DIA	.13	.130 DIA	.005
	F	2.54	.13	.100	.005
	G	8.13	.13	.320	.005
	H	45°	5°	45°	5°
	I	2.54	.13	.100	.005
	J	14.22	.13	.560	.005
	K	1.52	.13	.060	.005
	M	0.13	.02	.005	.001
	N	3.81	REF	.150	REF

POWER OUTPUT VS POWER INPUT (TYPICAL)

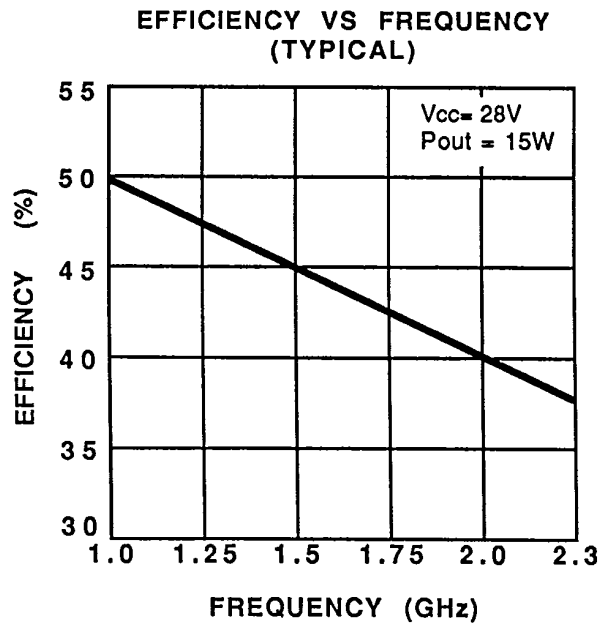
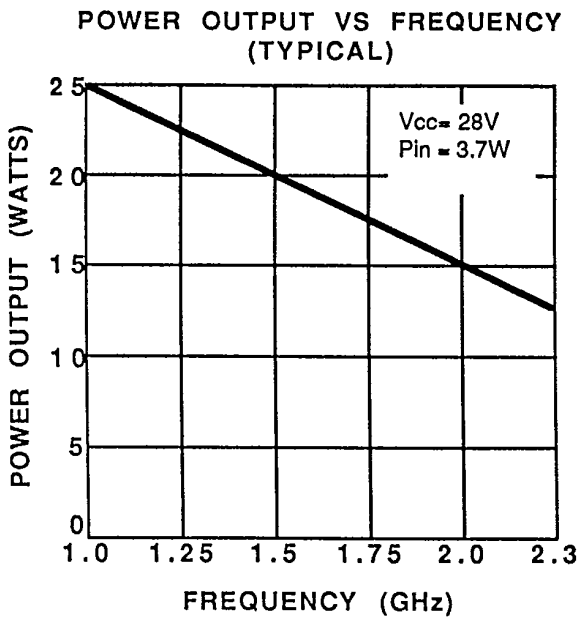


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ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f= 2000 MHz V _{cc} = 28V	15.0			Watts
P _{in}	Power Input				3.75	Watts
P _g	Power Gain			7.0		dB
η _c	Collector Efficiency			35		%
VSWR	Load Mismatch Tolerance				∞:1	
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 6mA	3.5			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 60mA	50			Volts
BV _{cbo}	Breakdown Voltage (Collector - Base)	I _e = 0A, I _c = 6mA	45			Volts
I _{cbo}	Collector Leakage Current	I _e = 0A, V _{cb} = 28V			3	mA
C _{ob}	Capacitance-Collector to Base	V _{cb} = 28V, f= 1MHz		22		pF
h _{FE}	DC-Current Gain	V _{ce} = 5V, I _c = 600mA	10			
θ _{jc}	Thermal Resistance				3.5	°C/W

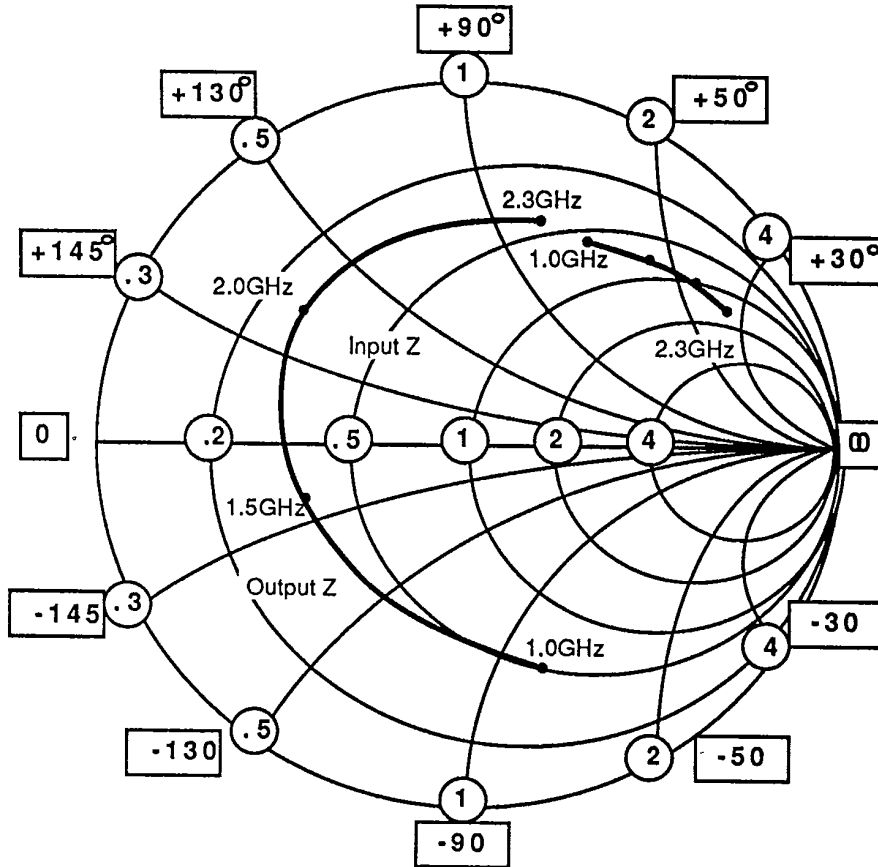
Note 1: T_c = +25°C unless otherwise specified



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

**SMITH CHART
2015M**

NORMALIZED IMPEDANCE AND ADMITTANCE COORDINATES
Vcc= 28V



NORMALIZED TO A 5 OHM SYSTEM.

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