



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!



Contact us

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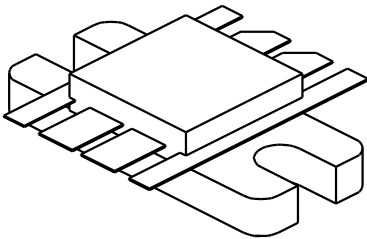
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0105-50

50 Watts, 28 Volts, Class AB
Defcom 100 - 500 MHz

<p>GENERAL DESCRIPTION</p> <p>The 0105-50 is a double input matched COMMON EMITTER broadband transistor specifically intended for use in the 100-500 MHz frequency band. It may be operated in Class AB or C. Gold metallization and silicon diffused resistors ensure ruggedness and high reliability.</p>	<p>CASE OUTLINE 55JT, Style 2</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 140 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 65 Volts BVebo Emitter to Base Voltage 4.0 Volts Ic Collector Current 7.0 A</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 65 to +150°C Operating Junction Temperature +200°C</p>	

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 500 MHz	50			Watts
Pin	Power Input	Vcc = 28 Volts		5.0	7.0	Watts
Pg	Power Gain		8.5	10		dB
η_c	Efficiency			55		%
VSWR	Load Mismatch Tolerance				5:1	

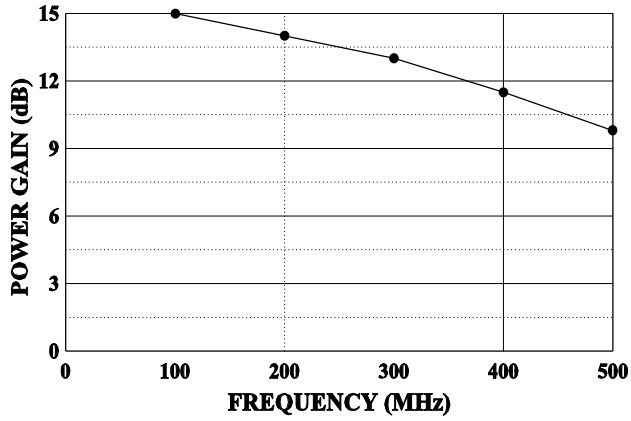
BVebo	Emitter to Base Breakdown	Ie = 10 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	Ic = 100 mA	60			Volts
BVceo	Collector to Emitter Breakdown	Ie = 100 mA	33			Volts
Cob	Output Capacitance	Vcb = 28 V, F = 1 MHz		52		pF
h_{FE}	DC - Current Gain	Vce = 5 V, Ic = 1 A	10			
θ_{jc}	Thermal Resistance				1.25	°C/W

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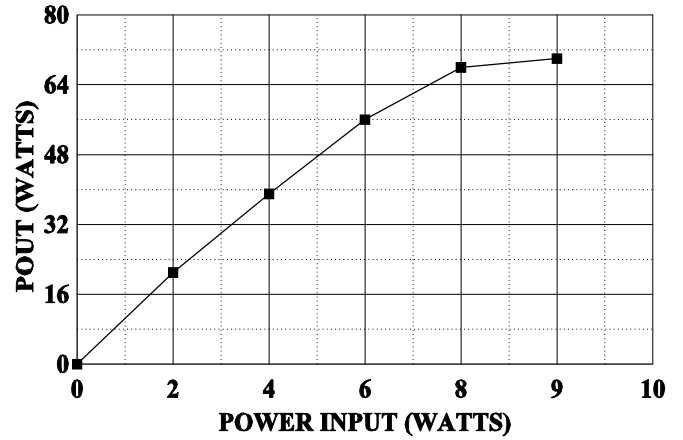
POWER GAIN VS FREQUENCY

Po=50W, Vcc=28V

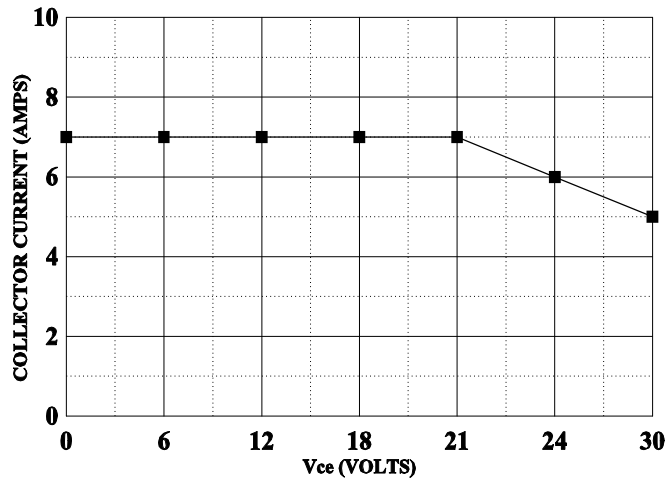


POWER OUTPUT vs POWER INPUT

Vcc= 28V f=400MHz



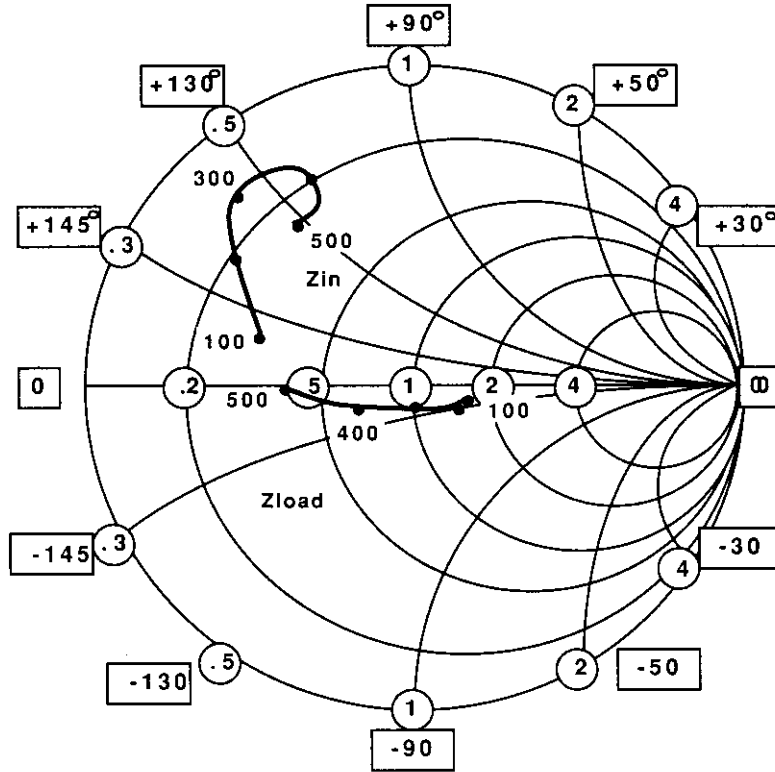
DC SAFE OPERATING AREA



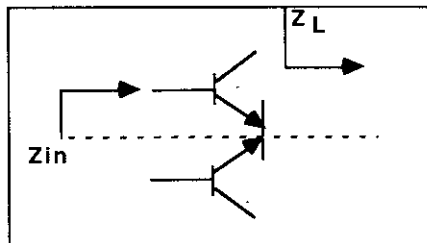
SMITH CHART

0105-50

NORMALIZED IMPEDANCE AND ADMITTANCE COORDINATES



NORMALIZED TO 10 OHM SYSTEM



FREQUENCY MHz	R	Zin	JX	FREQUENCY MHz	R	Zload	JX
100	3.5		+ 1.8	100	12.2		- 2.0
200	2.2		+ 3.0	200	11.0		- 2.5
300	1.5		+ 4.4	300	10.0		- 1.4
400	2.4		+ 5.2	400	7.0		- 1.4
500	2.8		+ 4.0	500	4.0		- 0.5