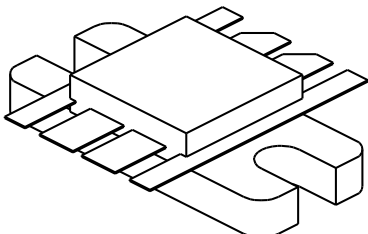


0105-100

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

<p>GENERAL DESCRIPTION The 0105-100 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 270 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 16 A</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 40 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	100			Watts
Pin	Power Input	Vcc = 28 Volts		18	24	Watts
Pg	Power Gain		6.2	7.5		dB
η_c	Efficiency			50		%
VSWR	Load Mismatch Tolerance				5:1	

BVebo	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	Ic = 100 mA	60			Volts
BVceo	Collector to Emitter Breakdown	Ie = 50 mA	31			Volts
Cob²	Output Capacitance	Vcb = 28 V, F = 1 MHz		140		pF
h_{FE}	DC - Current Gain	Vce = 5 V, Ic = 500 mA	10			
θ_{jc}	Thermal Resistance				0.65	°C/W

Note 2: Both sides together, all other specifications each side tested separately

Issue August 1996

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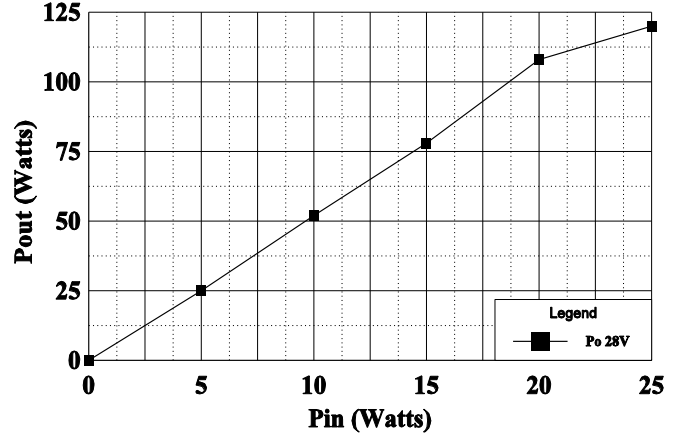


GHZ TECHNOLOGY
RF-MICROWAVE SILICON POWER TRANSISTORS

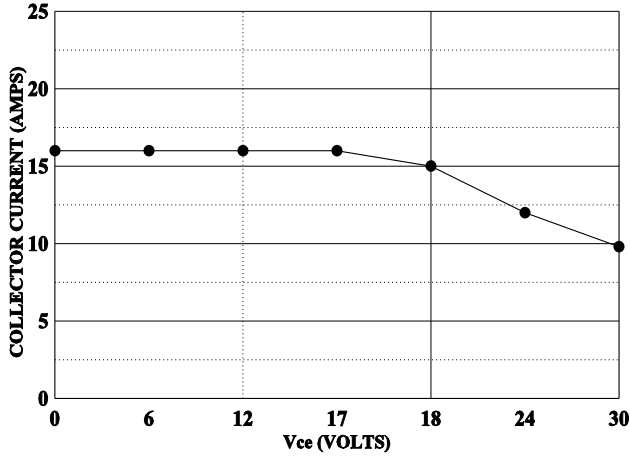
0105-100

POWER OUTPUT vs POWER INPUT

$V_{cc}=28V, f=500MHz$

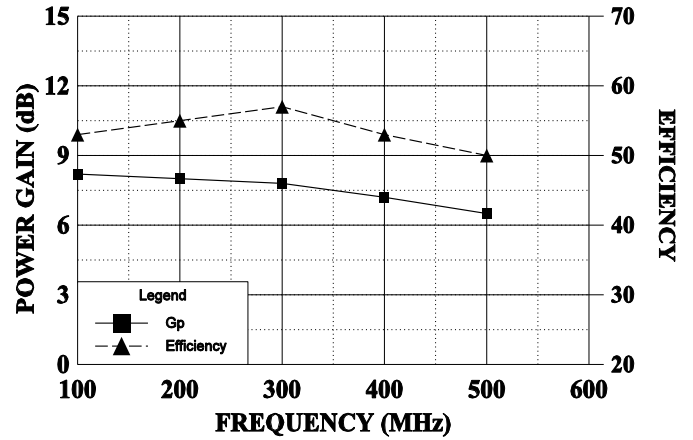


DC SAFE OPERATING AREA

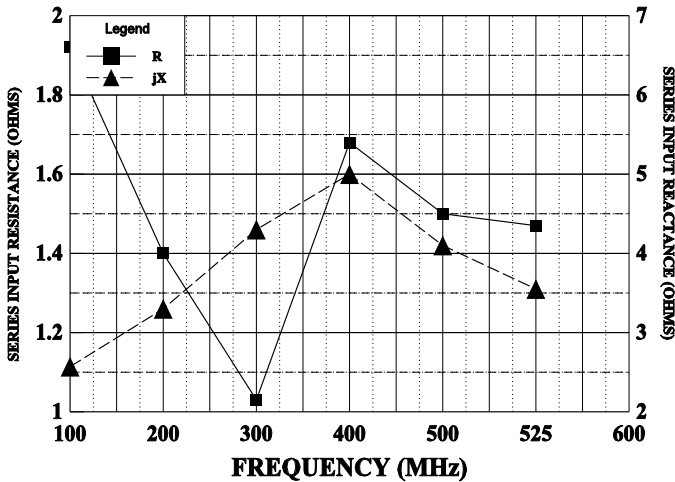


PERFORMANCE VS FREQUENCY

$V_{cc}=28V, P_{out}=100W, \text{Class AB}$



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY

