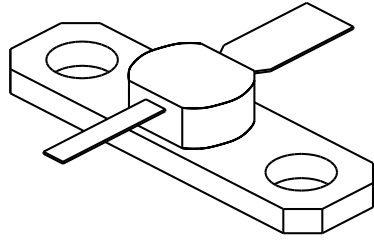


101/101A

1 Watt - 28 Volts, Class C
Microwave, 500-1200 MHz

<p>GENERAL DESCRIPTION</p> <p>The 101/101A is a COMMON BASE transistor capable of providing 1 Watt Class C, RF output power at 500-1200 MHz. Gold Metalization and diffused ballasting are used to provide high reliability and supreme ruggedness. The transistor uses a fully hermetic High Temperature Solder Sealed package.</p>	<p>CASE OUTLINE 55BT-1, Style 1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 7.0 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 50 Volts BVebo Emitter to Base Voltage 3.5 Volts Ic Collector Current 200 mA</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 Out	F = 2 GHz	1.0			Watt
Pin	Power Input	Vcb = 28 Volts			0.125	Watt
Pg	Power Gain	Po = 1.0 Watts	9.0	9.5		dB
η_c	Collector Efficiency	As Above		40		%
VSWR₁	Load Mismatch Tolerance	F = 2 GHz, Po = 1.0 W			30:1	

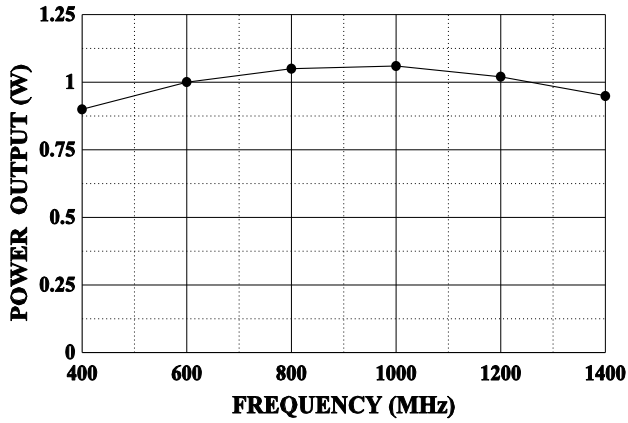
BVces	Collector to Emitter Breakdown	Ic = 10 mA	50			Volts
BVcbo	Collector to Base Breakdown	Ic = 1 mA	45			Volts
BVebo	Emitter to Base Breakdown	Ie = 1.0 mA	3.5			Volts
Icbo	Collector to Base Current	Vcb = 28 Volts			500	μA
h_{FE}	Current Gain	Vce = 5 V, Ic = 100 mA	20			
Cob	Output Capacitance	F = 1 MHz, Vcb = 28 V		4.0		pF
θ_{jc}	Thermal Resistance				35	°C/W

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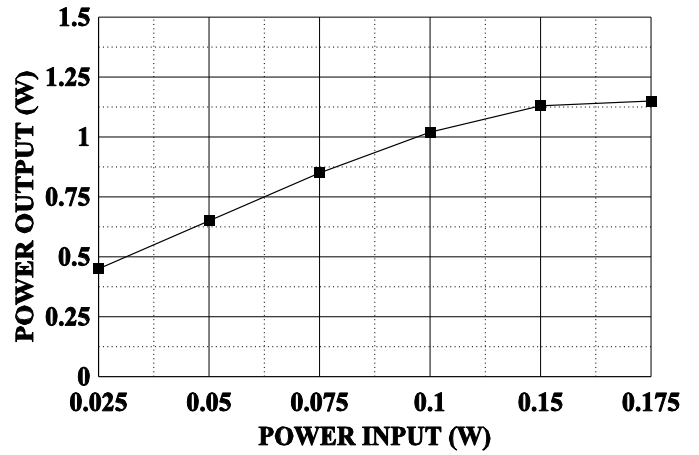
POWER OUTPUT VS FREQUENCY

V_{ce}=28 Volts, f=1.0 GHz



POWER OUTPUT VS POWER INPUT

V_{ce}=28 Volts, f=1.0 GHz



DC SAFE OPERATING AREA

