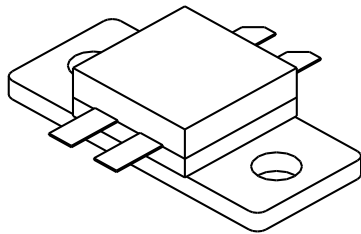


---

# 0510-50A

50 Watts, 28 Volts, Class AB  
Defcom 500 - 1000 MHz

---

<p><b>GENERAL DESCRIPTION</b></p> <p>The 0510-50A is a double input matched COMMON EMITTER broadband transistor specifically intended for use in the 500-1000 MHz frequency band. It may be operated in Class AB or C. Gold metallization and silicon diffused resistors ensure improved ruggedness and high reliability.</p>	<p><b>CASE OUTLINE</b> <b>55AV - Style 2</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C                      125 Watts</p> <p><b>Maximum Voltage and Current</b></p> <p>BVces    Collector to Emitter Voltage                      60 Volts          BVebo    Emitter to Base Voltage                              4.0 Volts          Ic        Collector Current    3.7 A</p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature    - 65 to +200°C          Operating Junction Temperature                              +200°C</p>	

## ELECTRICAL CHARACTERISTICS @ 25 °C

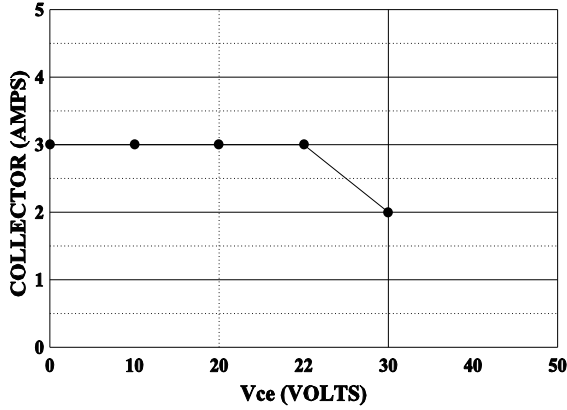
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Output	F = 1000 MHz	50			Watts
<b>Pin</b>	Power Input	Vcc = 28 Volts			12.5	Watts
<b>Pg</b>	Power Gain			7.0		dB
$\eta_c$	Efficiency			50		%
<b>VSWR</b>	Load Mismatch Tolerance	Vcb = 28V, Po = 50W			5:1	

<b>BVebo</b>	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
<b>BVces</b>	Collector to Emitter Breakdown	Ic = 100 mA	60			Volts
<b>BVceo</b>	Collector to Emitter Breakdown	Ie = 50 mA	27			Volts
<b>Cob</b>	Output Capacitance	Vcb = 28 V, F = 1 MHz		27		pF
$h_{FE}$	DC - Current Gain	Vce = 5 V, Ic = 500 mA	10			
$\theta_{jc}$	Thermal Resistance				1.4	°C/W

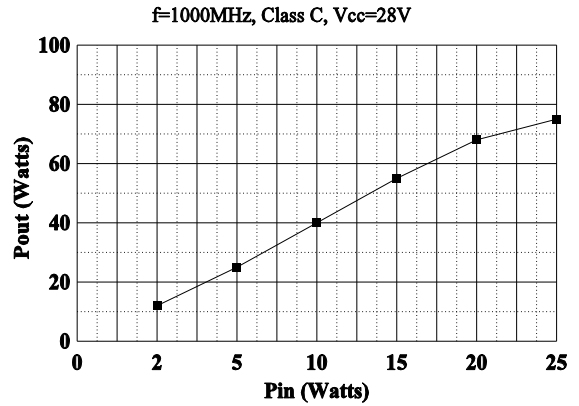
Issue August 1996

GHz TECHNOLOGY INC. RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE. GHz RECOMMENDS THAT BEFORE THE PRODUCT(S) DESCRIBED HEREIN ARE WRITTEN INTO SPECIFICATIONS, OR USED IN CRITICAL APPLICATIONS, THAT THE PERFORMANCE CHARACTERISTICS BE VERIFIED BY CONTACTING THE FACTORY.

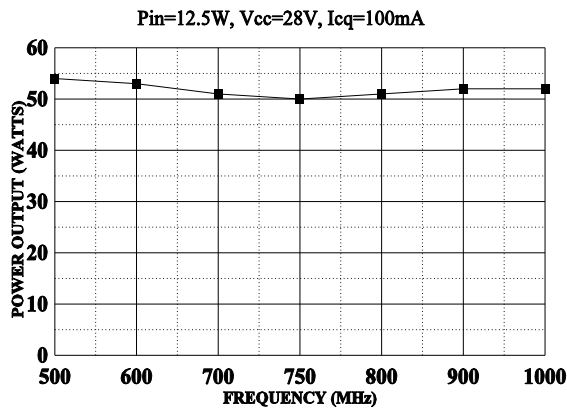
**DC SAFE OPERATING AREA**



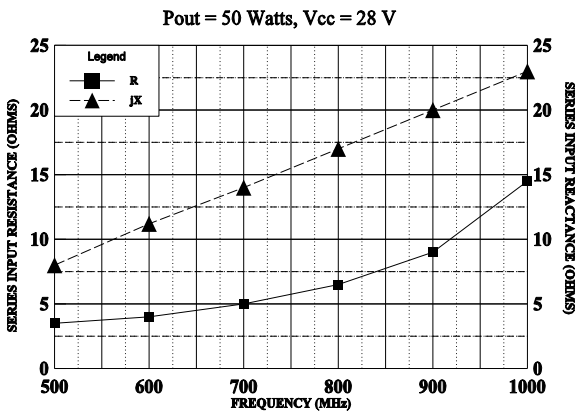
**POWER OUTPUT vs POWER INPUT**



**POWER OUTPUT VS FREQUENCY**



**SERIES INPUT IMPEDANCE vs FREQUENCY**



**SERIES LOAD IMPEDANCE vs FREQUENCY**

