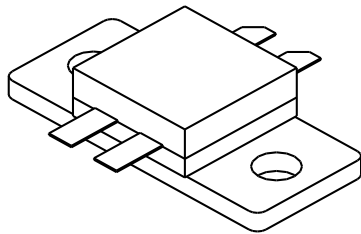

0510-50A

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

<p>GENERAL DESCRIPTION</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>CASE OUTLINE 55AV - Style 2</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 125 Watts</p> <p>Maximum Voltage and Current</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>Maximum Temperatures</p> <p>Storage Temperature - 65 to +200°C Operating Junction Temperature +200°C</p>	

ELECTRICAL CHARACTERISTICS @ 25 °C

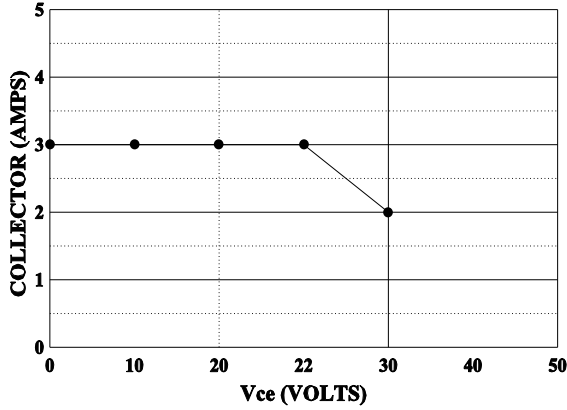
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 1000 MHz	50			Watts
Pin	Power Input	Vcc = 28 Volts			12.5	Watts
Pg	Power Gain			7.0		dB
η_c	Efficiency			50		%
VSWR	Load Mismatch Tolerance	Vcb = 28V, Po = 50W			5:1	

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	27			Volts
Cob	Output Capacitance	Vcb = 28 V, F = 1 MHz		27		pF
h_{FE}	DC - Current Gain	Vce = 5 V, Ic = 500 mA	10			
θ_{jc}	Thermal Resistance				1.4	°C/W

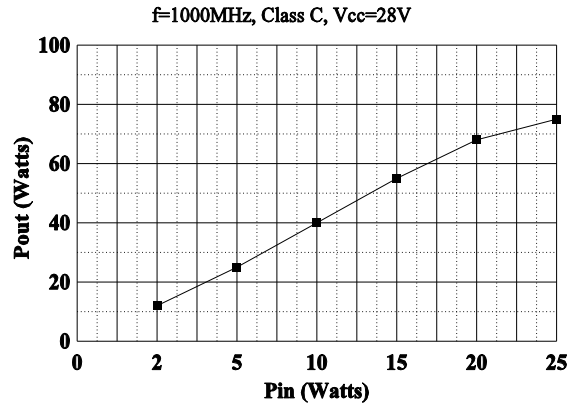
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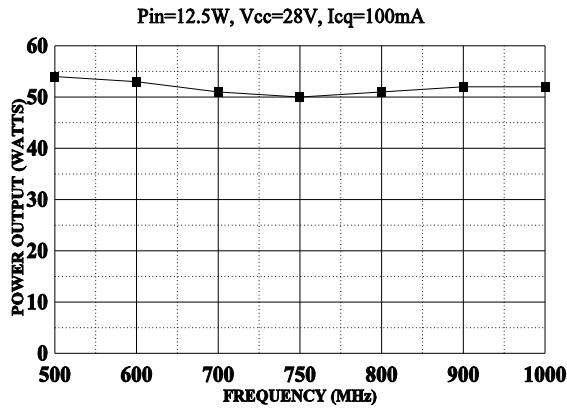
DC SAFE OPERATING AREA



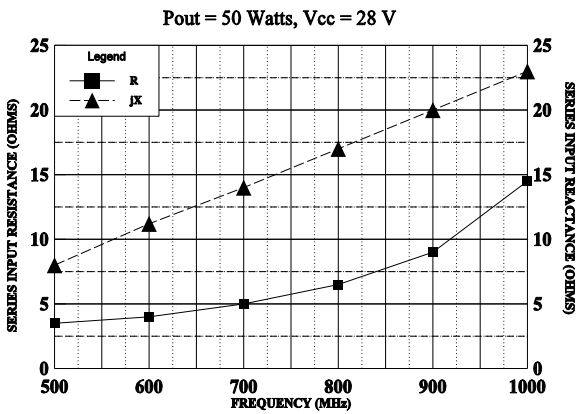
POWER OUTPUT vs POWER INPUT



POWER OUTPUT VS FREQUENCY



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY

