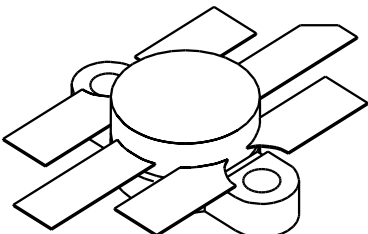


UMIL 60

60 Watts, 28 Volts, Class AB
Defcom 225 - 400 MHz

<p>GENERAL DESCRIPTION The UMIL60 is a double input matched COMMON EMITTER broadband transistor specifically intended for use in the 225-400 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 55HW, 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 60 Volts BVebo Emitter to Base Voltage 4.0 Volts Ic Collector Current 8.0 A</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 65 to +150°C Operating Junction Temperature +150°C</p>	

ELECTRICAL CHARACTERISTICS @ 25 °C

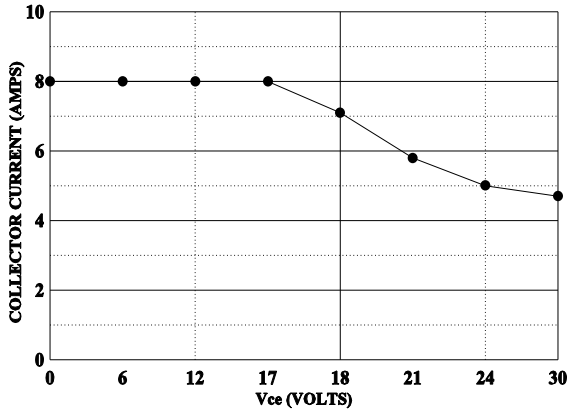
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 400 MHz	60			Watts
Pin	Power Input	Vcc = 28 Volts			8	Watts
Pg	Power Gain		8.8	9.0		dB
η_c	Efficiency			60		%
VSWR	Load Mismatch Tolerance				5:1	

BVebo	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	Ic = 50 mA	60			Volts
BVceo	Collector to Emitter Breakdown	Ie = 50 mA	33			Volts
Cob	Output Capacitance	Vcb = 28 V, F = 1 MHz			75	pF
h_{FE}	DC - Current Gain	Vce = 5 V, Ic = 2 A	10			
θ_{jc}	Thermal Resistance				.65	°C/W

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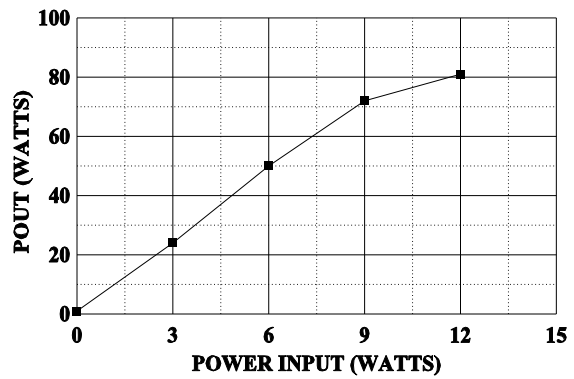
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DC SAFE OPERATING AREA

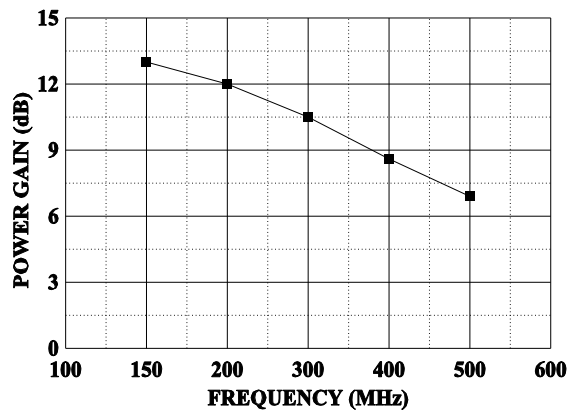


POWER OUTPUT vs POWER INPUT

V_{cc}= 28V f=400MHz

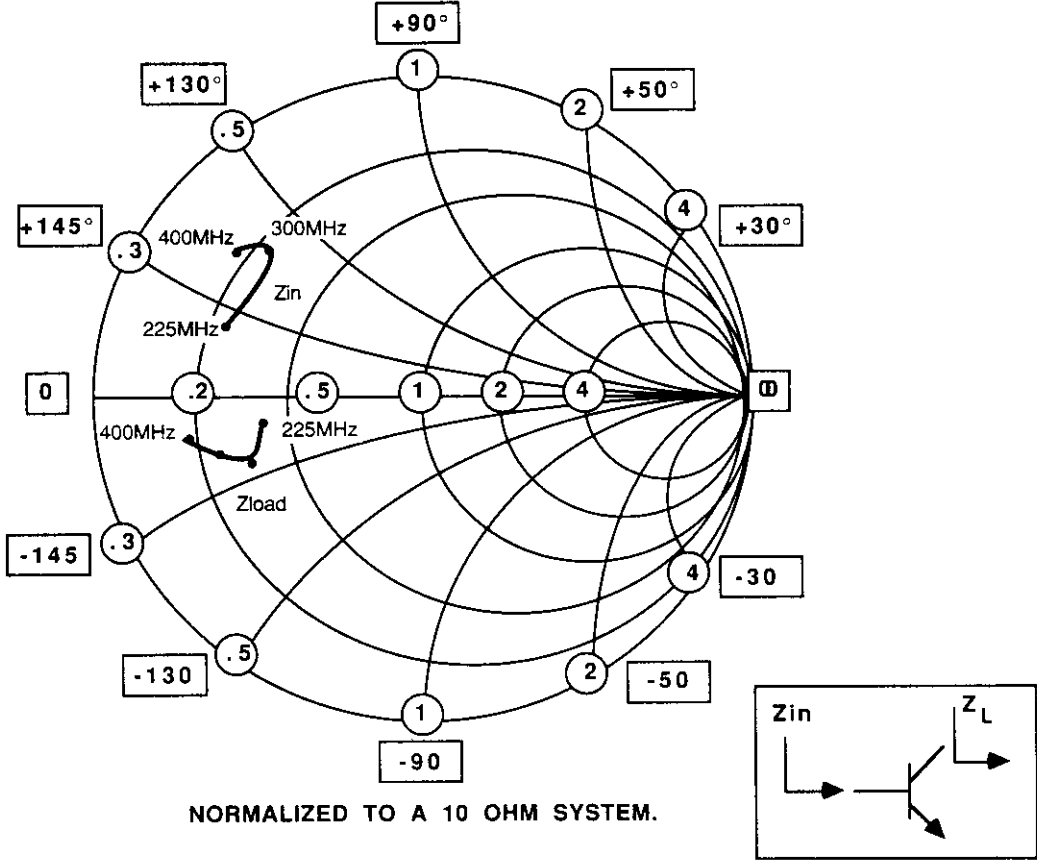


POWER GAIN VS FREQUENCY



SMITH CHART UMIL60

NORMALIZED IMPEDANCE AND ADMITTANCE COORDINATES



FREQUENCY MHz	R	Zin JX	FREQUENCY MHz	R	Zload JX
225	2.4	+2.5	225	4.0	-1.6
300	2.3	+4.4	300	3.6	-2.5
350	2.3	+4.0	350	2.7	-1.8
400	2.0	+2.9	400	2.0	-1.5