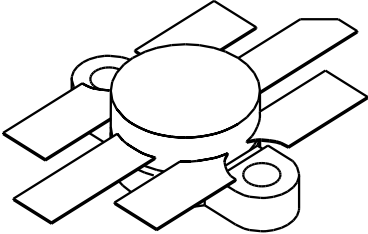

UMIL 60
60 Watts, 28 Volts, Class AB
Defcom 225 - 400 MHz

<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

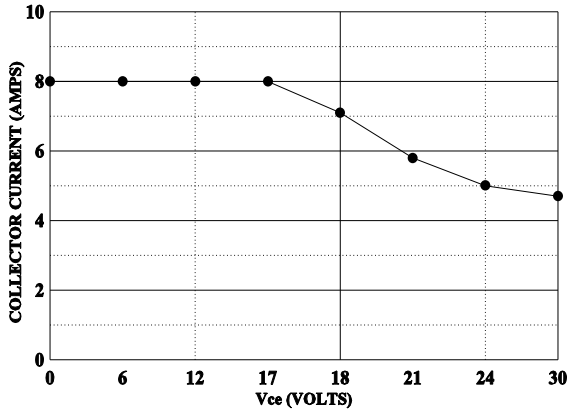
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 400 MHz	60			Watts
Pin	Power Input	Vcc = 28 Volts			8	Watts
Pg	Power Gain		8.8	9.0		dB
η_c	Efficiency			60		%
VSWR	Load Mismatch Tolerance				5:1	

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

Issue August 1996

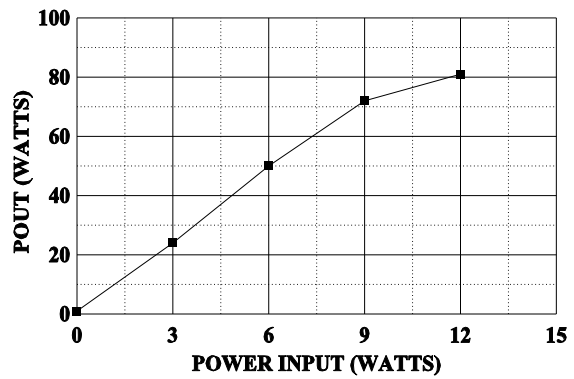
GHz TECHNOLOGY INC. RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE. GHz RECOMMENDS THAT BEFORE THE PRODUCT(S) DESCRIBED HEREIN ARE WRITTEN INTO SPECIFICATIONS, OR USED IN CRITICAL APPLICATIONS, THAT THE PERFORMANCE CHARACTERISTICS BE VERIFIED BY CONTACTING THE FACTORY.

DC SAFE OPERATING AREA

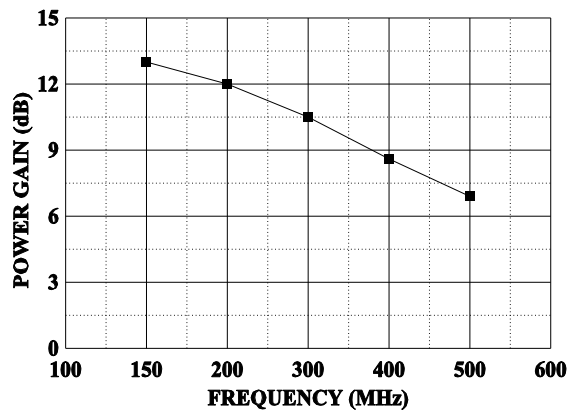


POWER OUTPUT vs POWER INPUT

Vcc=28V f=400MHz

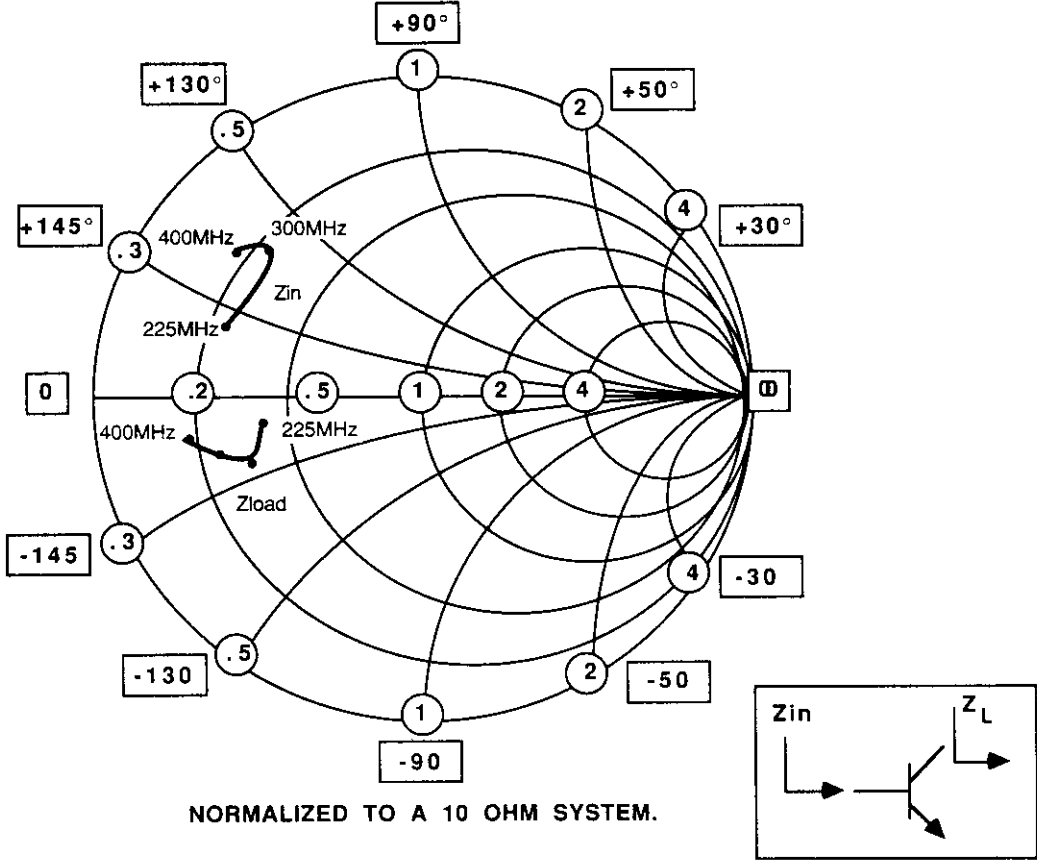


POWER GAIN VS FREQUENCY



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