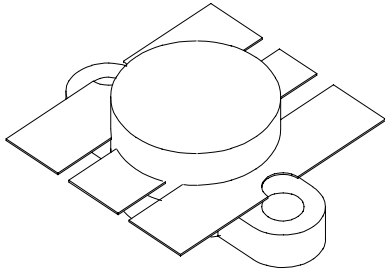




UMIL 80

80 Watts, 28 Volts, Class AB
Defcom 200 - 500 MHz

<p>GENERAL DESCRIPTION</p> <p>The UMIL80 is a double input matched COMMON EMITTER broadband transistor specifically intended for use in the 200-500 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 55HV, Style 2</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 220 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 65 Volts BVebo Emitter to Base Voltage 4.0 Volts Ic Collector Current 12 A</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 Output	F = 400 MHz	80			Watts
Pin	Power Input	Vcc = 28 Volts			10	Watts
Pg	Power Gain		9.0	9.5		dB
η_c	Efficiency		55			%
VSWR	Load Mismatch Tolerance				5:1	

BVebo	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	Ic = 20 mA	60			Volts
BVceo	Collector to Emitter Breakdown	Ie = 20 mA	31			Volts
BVcbo	Collector to Base Breakdown	Ic = 20 mA	60			Volts
Cob	Output Capacitance	Vcb=28 V, F= 1 MHz		80		pF
h_{FE}	DC - Current Gain	Vce = 5 V, Ic = 1 A	10			
θ_{jc}	Thermal Resistance				0.8	°C/W

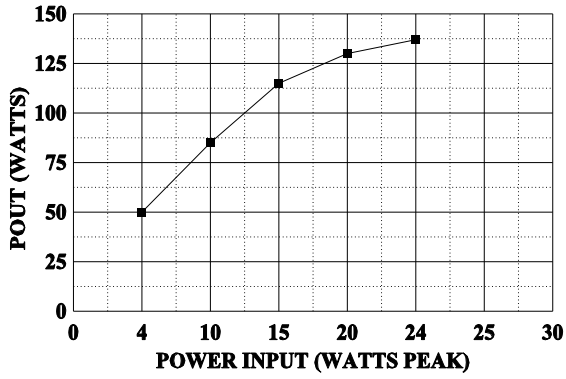
Issue October 1998 : Correct Case from Hu to HV

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GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

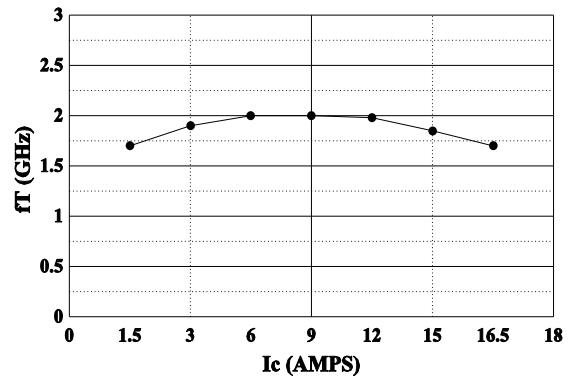
POWER OUTPUT vs POWER INPUT

$V_{cc}=28V$ $f=400MHz$



fT vs I_c

$V_{cc}=5V$, $T_c=25C$



DC SAFE OPERATING AREA

