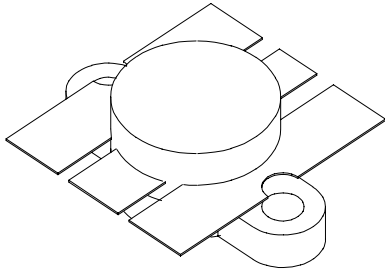


# UMIL 80

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

<p><b>GENERAL DESCRIPTION</b></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><b>CASE OUTLINE</b> <b>55HV, Style 2</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C                      220 Watts</p> <p><b>Maximum Voltage and Current</b></p> <p>BVces    Collector to Emitter Voltage                      65 Volts          BVebo    Emitter to Base Voltage                                4.0 Volts          Ic        Collector Current    12 A</p> <p><b>Maximum Temperatures</b></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
<b>Pout</b>	Power Output	F = 400 MHz	80			Watts
<b>Pin</b>	Power Input	Vcc = 28 Volts			10	Watts
<b>Pg</b>	Power Gain		9.0	9.5		dB
$\eta_c$	Efficiency		55			%
<b>VSWR</b>	Load Mismatch Tolerance				5:1	

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

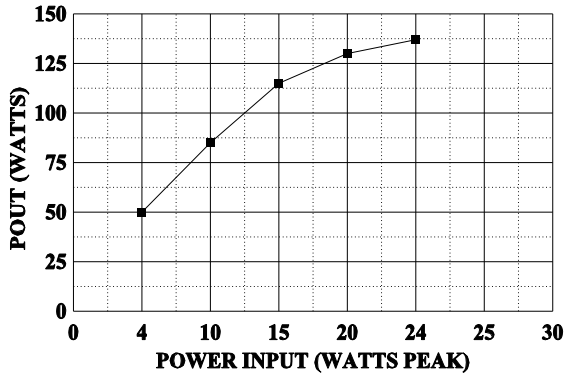
Issue October 1998 : Correct Case from Hu to HV

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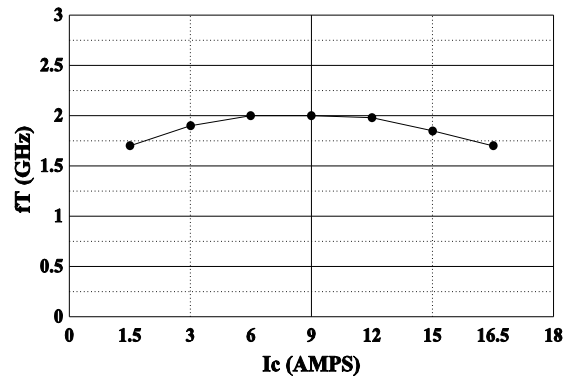
**POWER OUTPUT vs POWER INPUT**

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



***fT vs Ic***

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



**DC SAFE OPERATING AREA**

