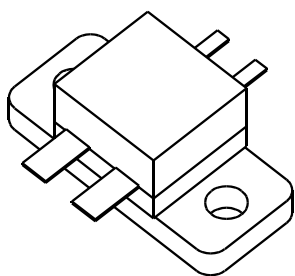


UTV080

8 Watts, 26.5 Volts, Class A
UHF Television - Band IV & V

<p>GENERAL DESCRIPTION The UTV 080 is a COMMON EMITTER transistor capable of providing 8 Watt Peak, Class A, RF Output Power over the band 470 - 860 MHz. The transistor includes double input prematching for full broadband capability. Gold Metalization and Diffused Ballasting are used to provide high reliability and supreme ruggedness.</p>	<p>CASE OUTLINE 55JV, STYLE 2</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 65 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 50 Volts BVceo Collector to Emitter Voltage 28 Volts BVebo Emitter to Base Voltage 3.5 Volts Ic Collector Current 2.5 Amps</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 Out - Pk Sync	F = 470 - 860 MHz	8			Watts
Pin	Power Input	Vcc = 26.5 Volts			1.0	Watts
Pg	Power Gain	Ic = 1.7 Amps	9	10		dB
IMD¹	Intermodulation Distortion	Pref = 8 Watts			-58	dB
VSWR₁	Load Mismatch Tolerance	F = 860 MHz			3:1	

LVceo²	Collector to Emitter Breakdown	Ic = 60 mA	28			Volts
BVces²	Collector to Base Breakdown	Ic = 20 mA	50			Volts
BVebo²	Emitter to Base Breakdown	Ie = 5 mA	3.5			Volts
h_{FE}²	Current Gain	Vce = 5 V, 500 mA	10			
Cob²	Output Capacitance	Vcb = 26 V, F = 1 MHz				pF
θjc	Thermal Resistance	Tc = 25°C			2.5	°C/W

Note 1: F1=860 MHz, F2=863.5 MHz, F3=864.5 Mhz

European test method, Vision = - 8dB, Sideband= - 16dB, Sound = -7 dB

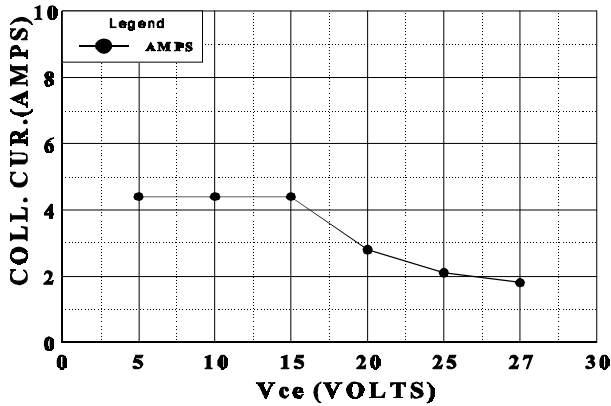
2: Per side

Initial Issue June, 1994

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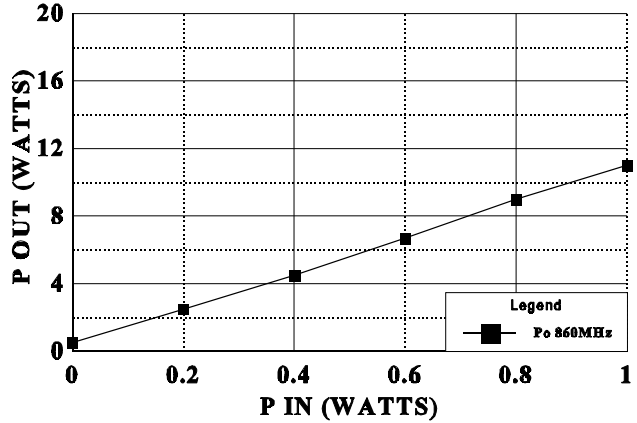
GHZ Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

DC SAFE OPERATING AREA

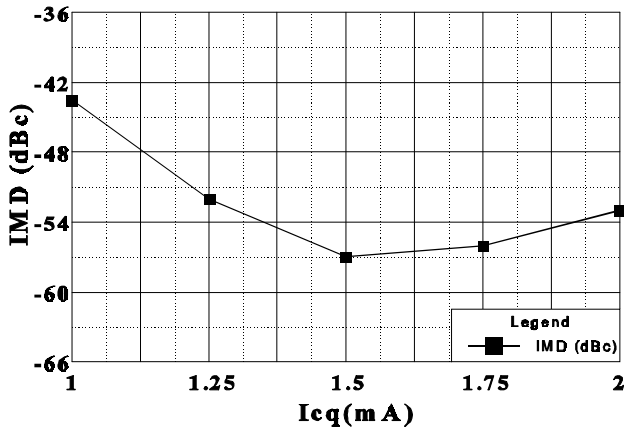


POWER OUTPUT vs POWER INPUT

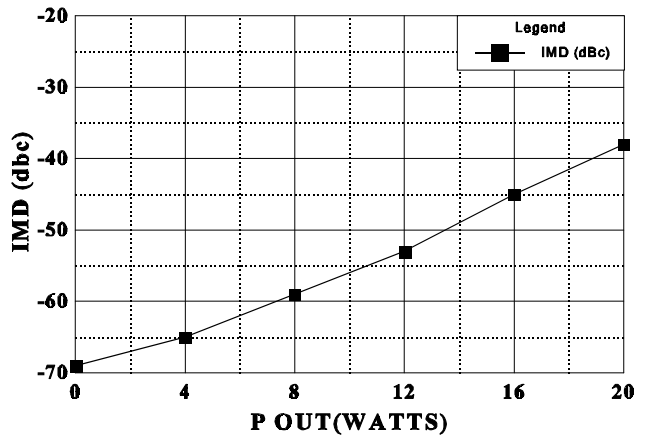
Vcc = 25 Frequency 860MHz



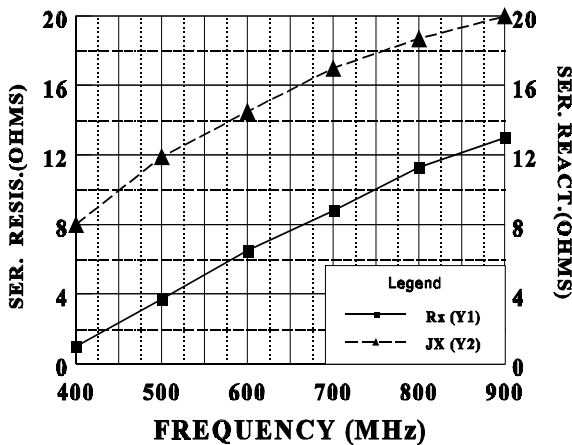
IMD vs Icq



IMD vs P out

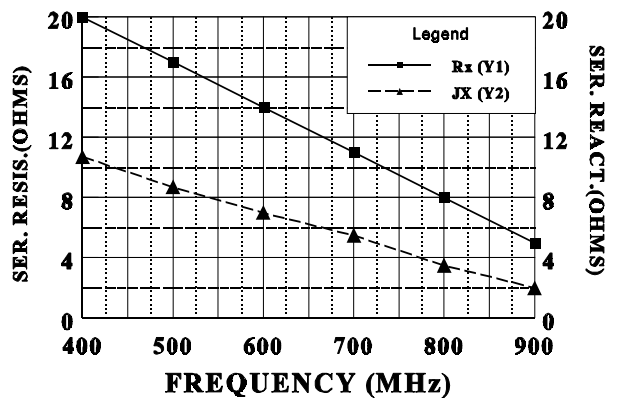


SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY

Vcc = 25V



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