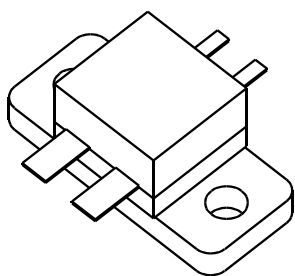




# UTV080

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

<p><b>GENERAL DESCRIPTION</b> 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><b>CASE OUTLINE</b> <b>55JV, STYLE 2</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C <span style="float: right;">65 Watts</span></p> <p><b>Maximum Voltage and Current</b></p> <p>BVces Collector to Emitter Voltage <span style="float: right;">50 Volts</span>          BVceo Collector to Emitter Voltage <span style="float: right;">28 Volts</span>          BVebo Emitter to Base Voltage <span style="float: right;">3.5 Volts</span>          Ic Collector Current <span style="float: right;">2.5 Amps</span></p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature <span style="float: right;">- 65 to + 150°C</span>          Operating Junction Temperature <span style="float: right;">+ 200°C</span></p>	

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Out - Pk Sync	F = 470 - 860 MHz	8			Watts
<b>Pin</b>	Power Input	Vcc = 26.5 Volts			1.0	Watts
<b>Pg</b>	Power Gain	Ic = 1.7 Amps	9	10		dB
<b>IMD<sup>1</sup></b>	Intermodulation Distortion	Pref = 8 Watts			-58	dB
<b>VSWR<sub>1</sub></b>	Load Mismatch Tolerance	F = 860 MHz			3:1	

<b>LVceo<sup>2</sup></b>	Collector to Emitter Breakdown	Ic = 60 mA	28			Volts
<b>BVces<sup>2</sup></b>	Collector to Base Breakdown	Ic = 20 mA	50			Volts
<b>BVebo<sup>2</sup></b>	Emitter to Base Breakdown	Ie = 5 mA	3.5			Volts
<b>h<sub>FE</sub><sup>2</sup></b>	Current Gain	Vce = 5 V, 500 mA	10			
<b>Cob<sup>2</sup></b>	Output Capacitance	Vcb = 26 V, F = 1 MHz				pF
<b>θjc</b>	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

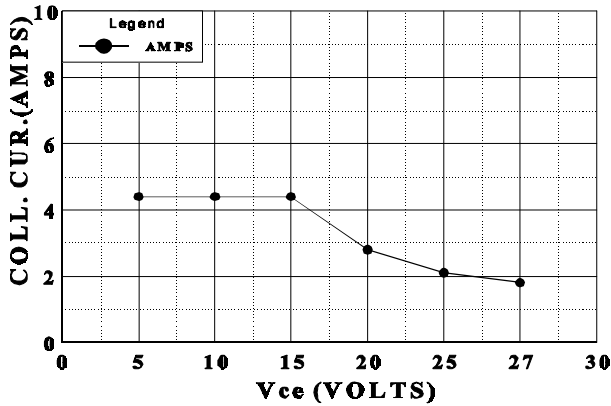
2: Per side

Initial Issue June, 1994

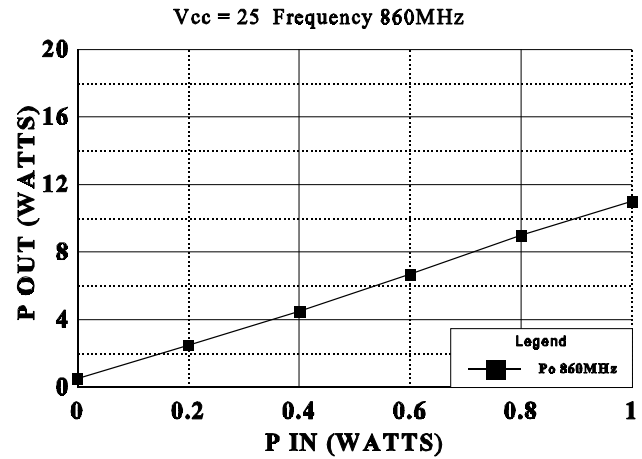
GHZ TECHNOLOGY INC. RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE. GHZ RECOMMENDS THAT BEFORE THE PRODUCT(S) DESCRIBED HEREIN ARE WRITTEN INTO SPECIFICATIONS, OR USED IN CRITICAL APPLICATIONS, THAT THE PERFORMANCE CHARACTERISTICS BE VERIFIED BY CONTACTING THE FACTORY.

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

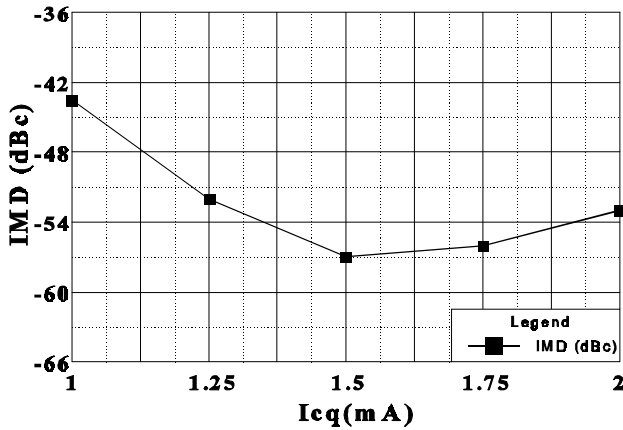
**DC SAFE OPERATING AREA**



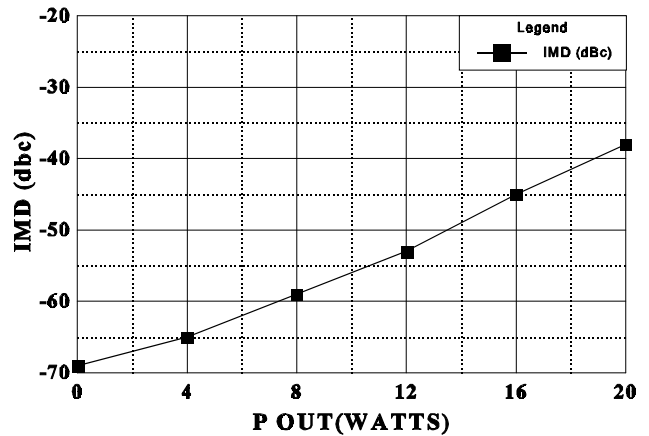
**POWER OUTPUT vs POWER INPUT**



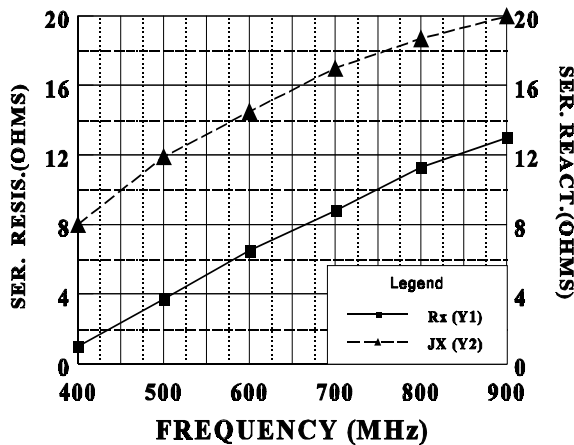
**IMD vs Icq**



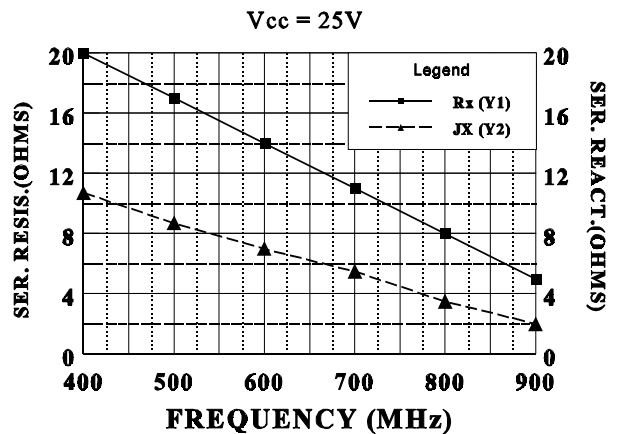
**IMD vs P out**



**SERIES INPUT IMPEDANCE vs FREQUENCY**



**SERIES LOAD IMPEDANCE vs FREQUENCY**



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.