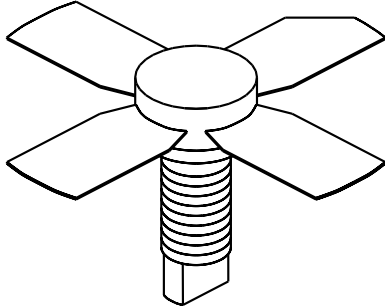


UTV040

4 Watts, 25 Volts, Class A
UHF Television - Band IV & V

<p>GENERAL DESCRIPTION</p> <p>The UTV 040 is a COMMON EMITTER transistor capable of providing 4 Watt Peak, Class A, RF Output Power over the band 470 - 860 MHz. Gold Metalization and Diffused Ballasting are used to provide high reliability and supreme ruggedness.</p>	<p>CASE OUTLINE 55FT, STYLE 2</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 25 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 45 Volts BVceo Collector to Emitter Voltage 25 Volts BVebo Emitter to Base Voltage 4.0 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	4.0			Watts
Pin	Power Input	Vcc = 25 Volts			0.65	Watts
Pg	Power Gain	Ic = 850 mA		9.0		dB
IMD¹	Intermodulation Distortion	Pref = 4.0 Watts		-60		dB
VSWR₁	Load Mismatch Tolerance	F = 860 MHz			30:1	

LVceo	Collector to Emitter Breakdown	Ic = 20 mA	25			Volts
BVces	Collector to Base Breakdown	Ic = 20 mA	45			Volts
BVebo	Emitter to Base Breakdown	Ie = 1 mA	4.0			Volts
h_{FE}	Current Gain	Vce = 5 V, 500 mA	10	17	100	
Cob	Output Capacitance	Vcb = 25 V, F = 1 MHz	10			pF
θjc	Thermal Resistance	Tc = 25°C			7.0	°C/W

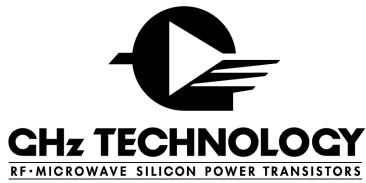
Note 1: F1=860 MHz, F2=863.5 MHz, F3=864.5 Mhz

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

Initial Issue June, 1994

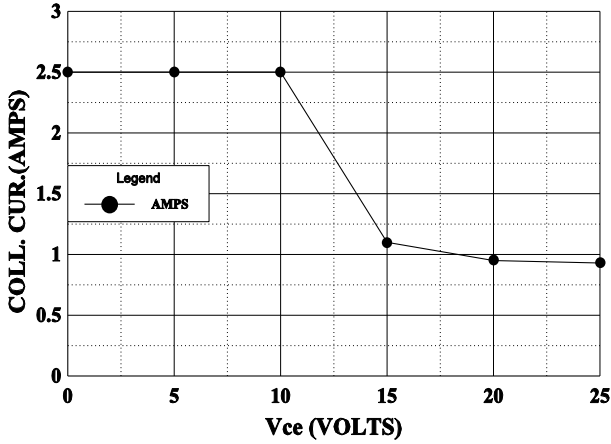
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GHZ Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

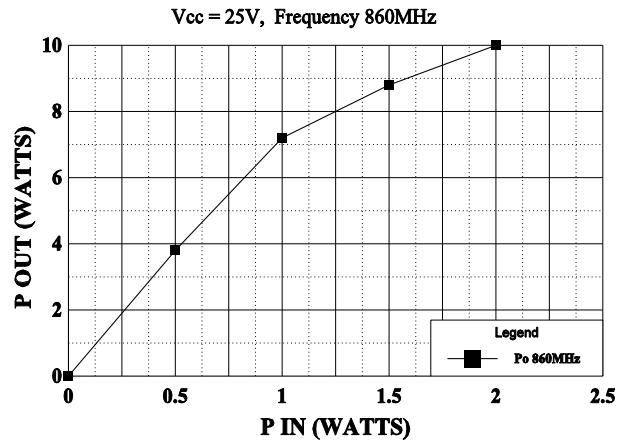


UTV040

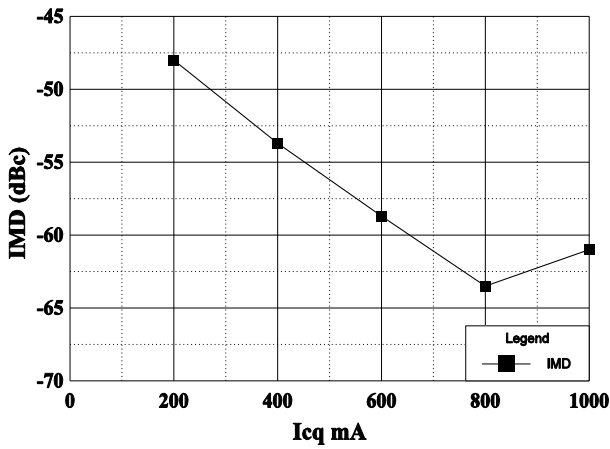
DC SAFE OPERATING AREA



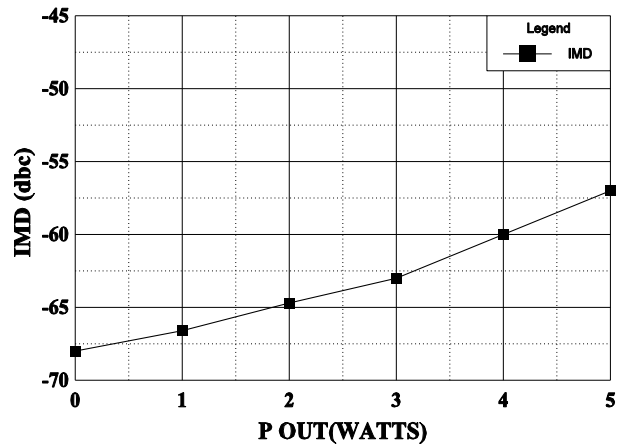
POWER OUTPUT vs POWER INPUT



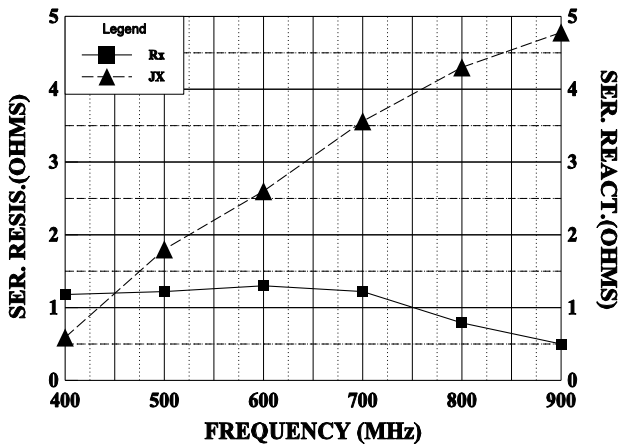
IMD vs Icq



IMD vs P out



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY

