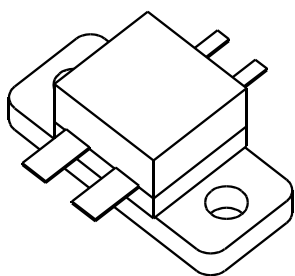


UTV080

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

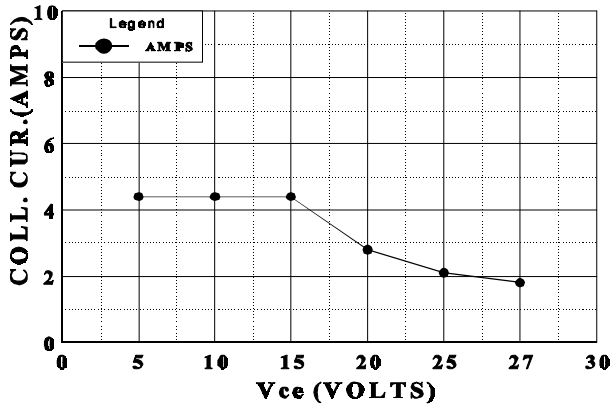
2: Per side

Initial Issue June, 1994

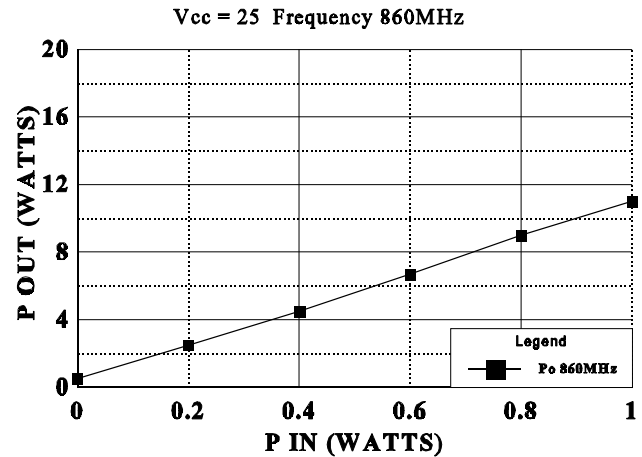
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GHZ Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

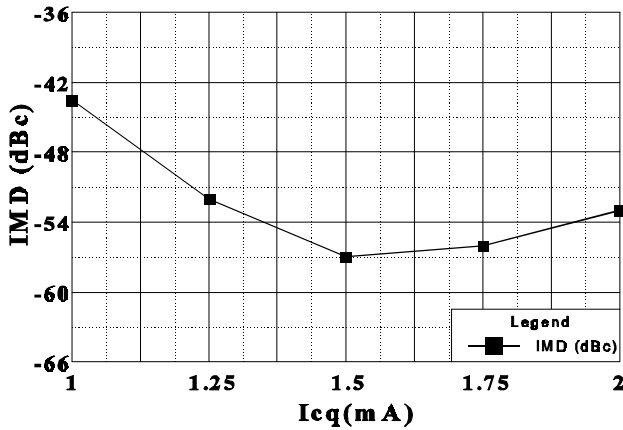
DC SAFE OPERATING AREA



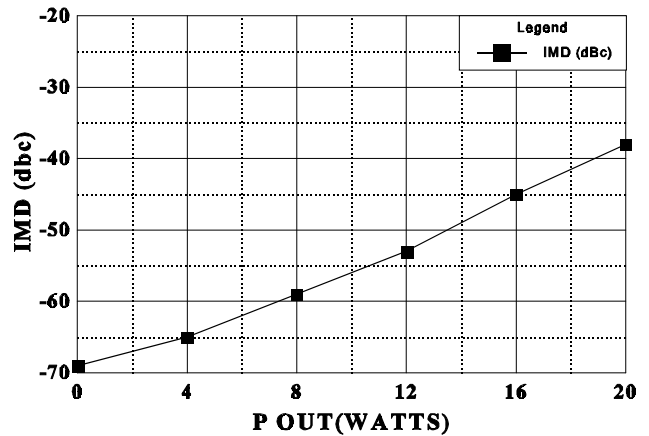
POWER OUTPUT vs POWER INPUT



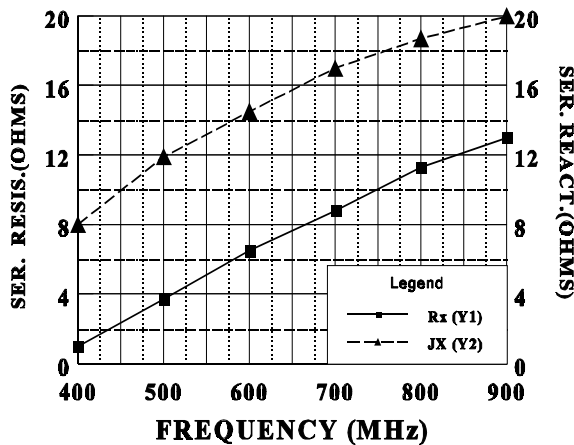
IMD vs Icq



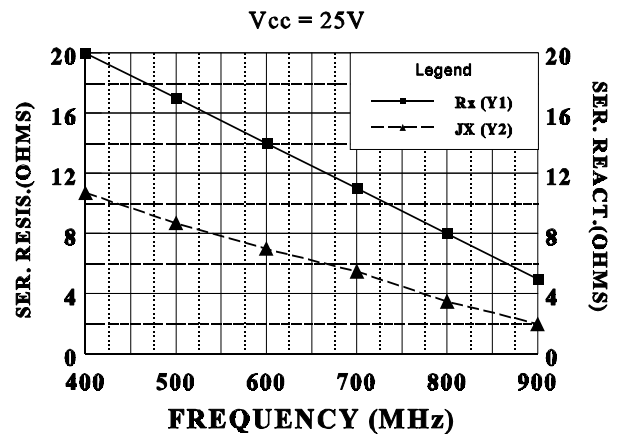
IMD vs P out



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY



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