

UTV080

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

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.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 65 Watts

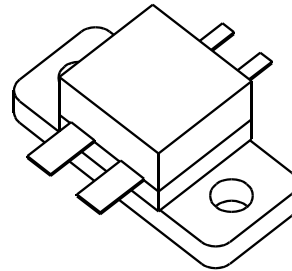
Maximum Voltage and Current

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

Maximum Temperatures

Storage Temperature	- 65 to + 150°C
Operating Junction Temperature	+ 200°C

CASE OUTLINE 55JV, STYLE 2



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Out - Pk Sync	F = 470 - 860 MHz	8			Watts
P _{in}	Power Input	V _{cc} = 26.5 Volts			1.0	Watts
P _g	Power Gain	I _c = 1.7 Amps	9	10		dB
IMD ¹	Intermodulation Distortion	P _{ref} = 8 Watts			-58	dB
VSWR ₁	Load Mismatch Tolerance	F = 860 MHz			3:1	

LV _{ceo} ²	Collector to Emitter Breakdown	I _c = 60 mA	28			Volts
BV _{ces} ²	Collector to Base Breakdown	I _c = 20 mA	50			Volts
BV _{ebo} ²	Emitter to Base Breakdown	I _e = 5 mA	3.5			Volts
h _{FE} ²	Current Gain	V _{ce} = 5 V, 500 mA	10			
C _{ob} ²	Output Capacitance	V _{cb} = 26 V, F = 1 MHz				pF
θ _{jc}	Thermal Resistance	T _c = 25°C			2.5	°C/W

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

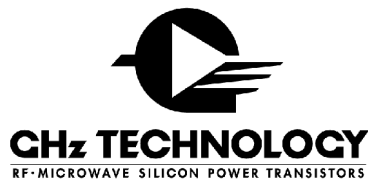
European test method, Vision = - 8dB, Sideband= - 16dB, Sound = -7 dB

2: Per side

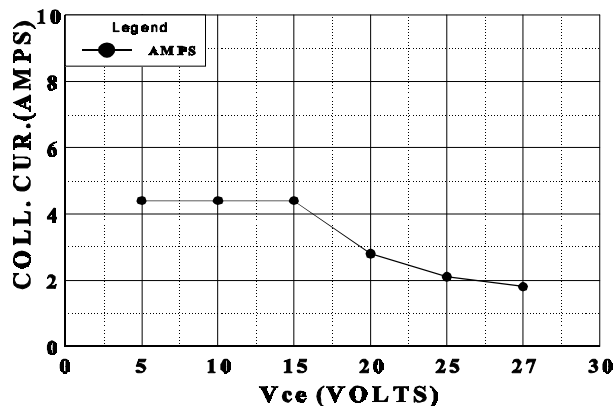
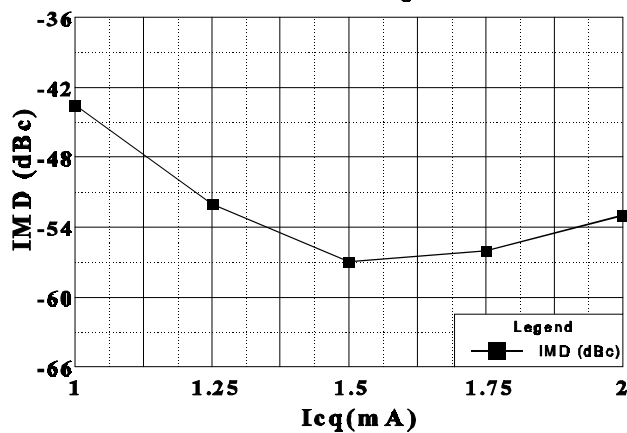
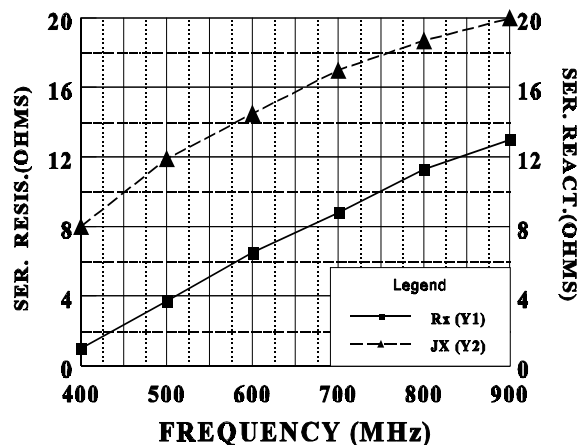
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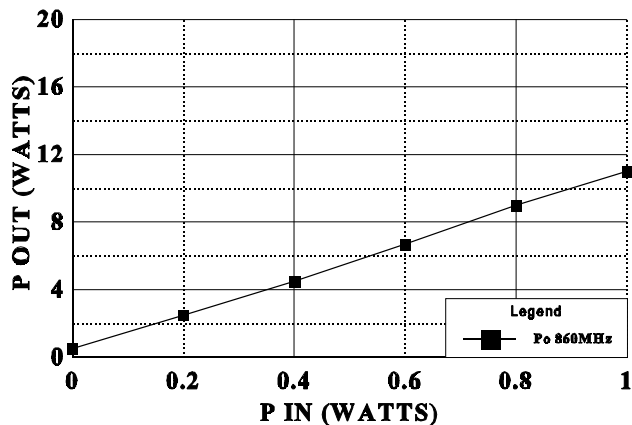
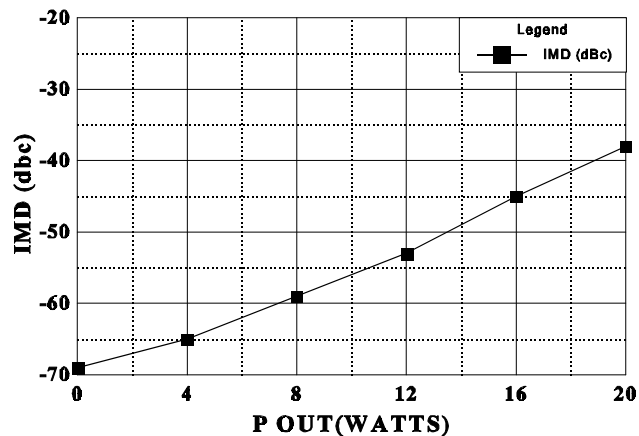
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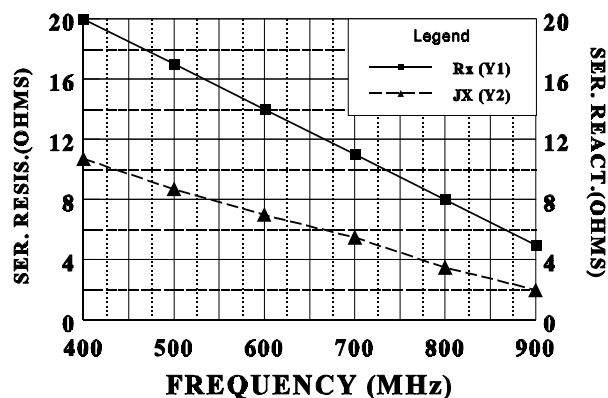
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DC SAFE OPERATING AREA**IMD vs Icq****SERIES INPUT IMPEDANCE vs FREQUENCY****POWER OUTPUT vs POWER INPUT**

Vcc = 25 Frequency 860MHz

**IMD vs P out****SERIES LOAD IMPEDANCE vs FREQUENCY**

Vcc = 25V



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