Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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GHz TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

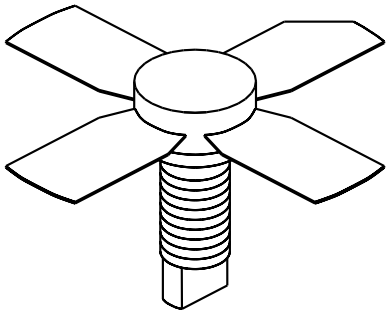
UTV040

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

GENERAL DESCRIPTION

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.

CASE OUTLINE
55FT, STYLE 2



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25ºC	25 Watts
Maximum Voltage and Current	
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
Maximum Temperatures	
Storage Temperature	- 65 to + 150ºC
Operating Junction Temperature	+ 200ºC

ELECTRICAL CHARACTERISTICS @ 25 ^{O}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
IMD[1]	Intermodulation Distortion	Pref = 4.0 Watts		-60		dB
VSWR$_1$	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 = 25ºC			7.0	ºC/W

Note 1: F1=860 MHz, F2=863.5 MHz, F3=864.5 Mhz
European test method, Vision = - 8dB, Sideband= - 16dB, Sound = -7 dB

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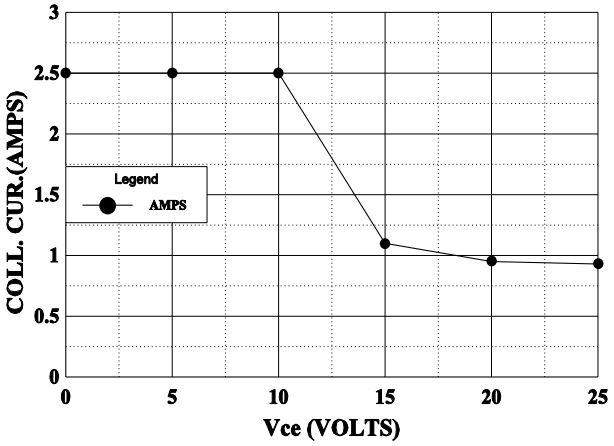
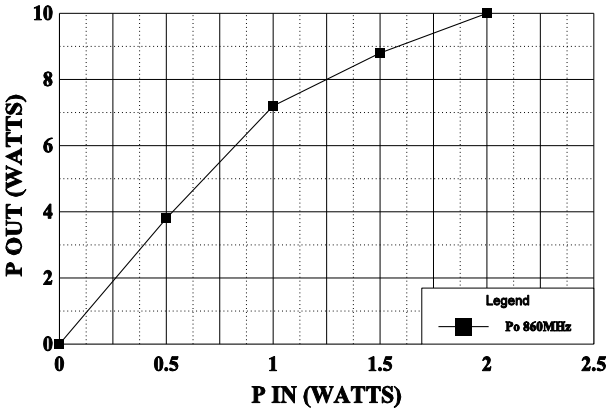
UTV040

DC SAFE OPERATING AREA

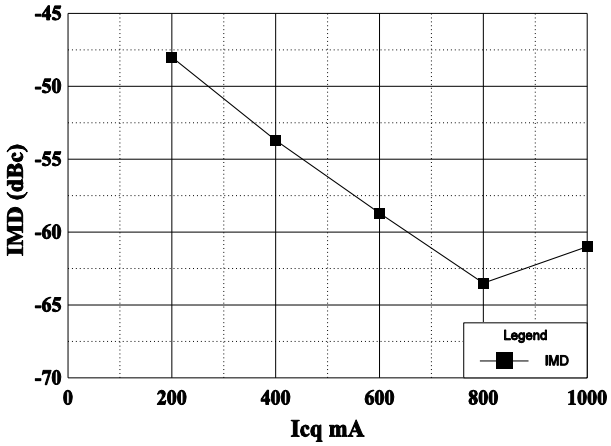


POWER OUTPUT vs POWER INPUT

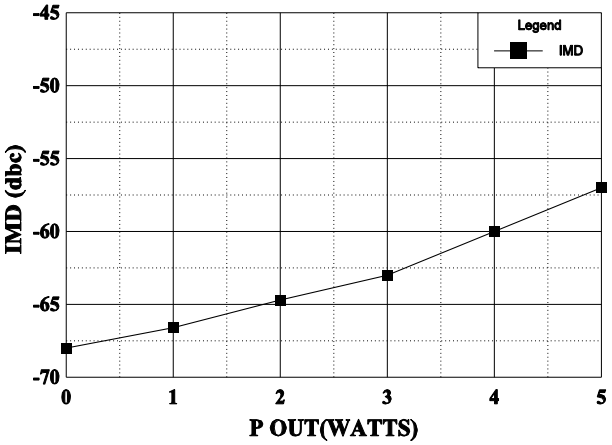
Vcc = 25V, Frequency 860MHz



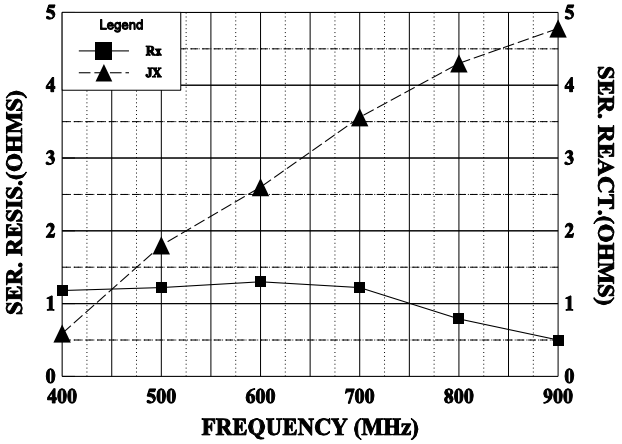
IMD vs Icq



IMD vs P out



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY