



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!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

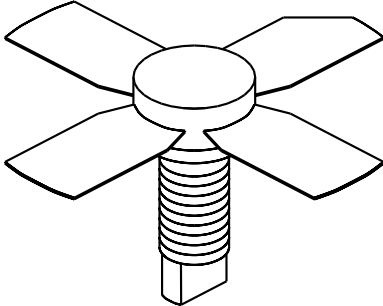
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



UTV010

1 Watt, 20 Volts, Class A
UHF Television - Band IV & V

<p>GENERAL DESCRIPTION</p> <p>The UTV 010 is a COMMON EMITTER transistor capable of providing 1 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 15 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 45 Volts BVceo Collector to Emitter Voltage 20 Volts BVebo Emitter to Base Voltage 3.5 Volts Ic Collector Current 1.25 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		1.0		Watts
Pin	Power Input	Vcc = 20 Volts			0.09	Watts
Pg	Power Gain	Ic = 440 mA		11.5		dB
IMD¹	Intermodulation Distortion	Pref = 1.0 Watts		-60		dB
VSWR₁	Load Mismatch Tolerance	F = 860 MHz			30:1	

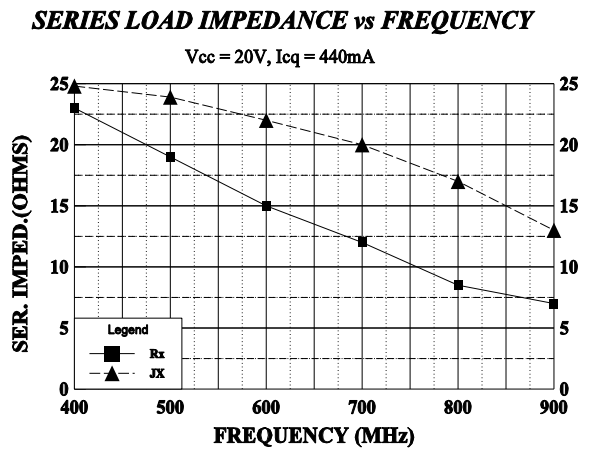
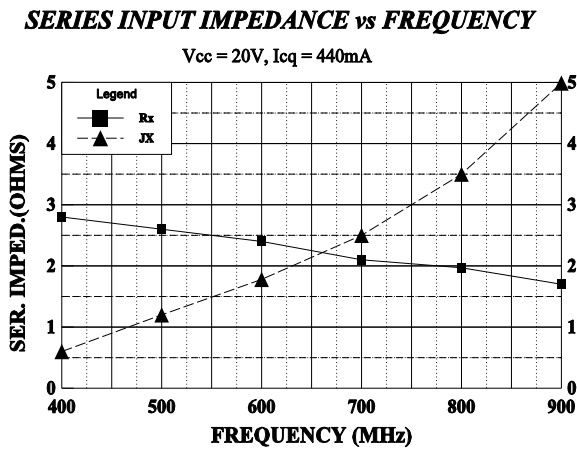
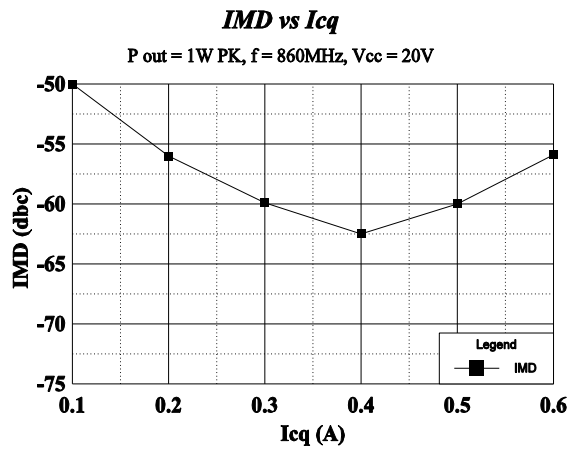
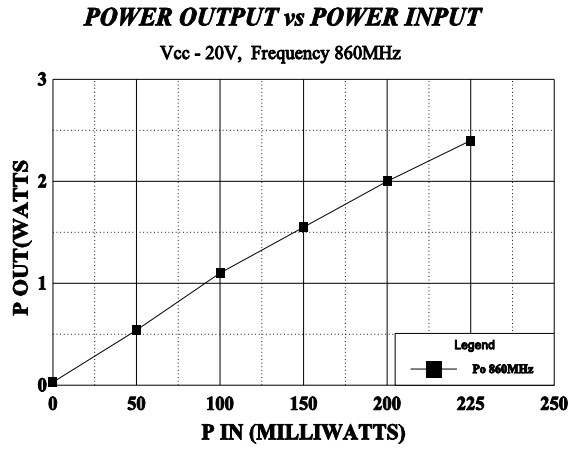
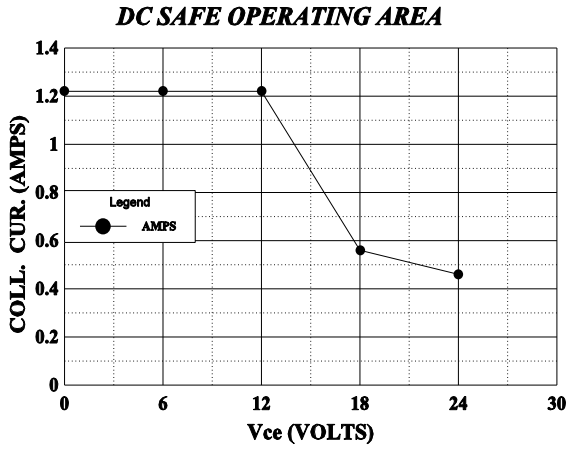
LVceo	Collector to Emitter Breakdown	Ic = 20 mA	24			Volts
BVces	Collector to Base Breakdown	Ic = 10 mA	45			Volts
BVebo	Emitter to Base Breakdown	Ie = 1 mA	3.5			Volts
h_{FE}	Current Gain	Vce = 5 V, 200 mA	15			
Cob	Output Capacitance	Vcb = 20 V, F = 1 MHz		7.0		pF
θjc	Thermal Resistance	Tc = 25°C			12	°C/W

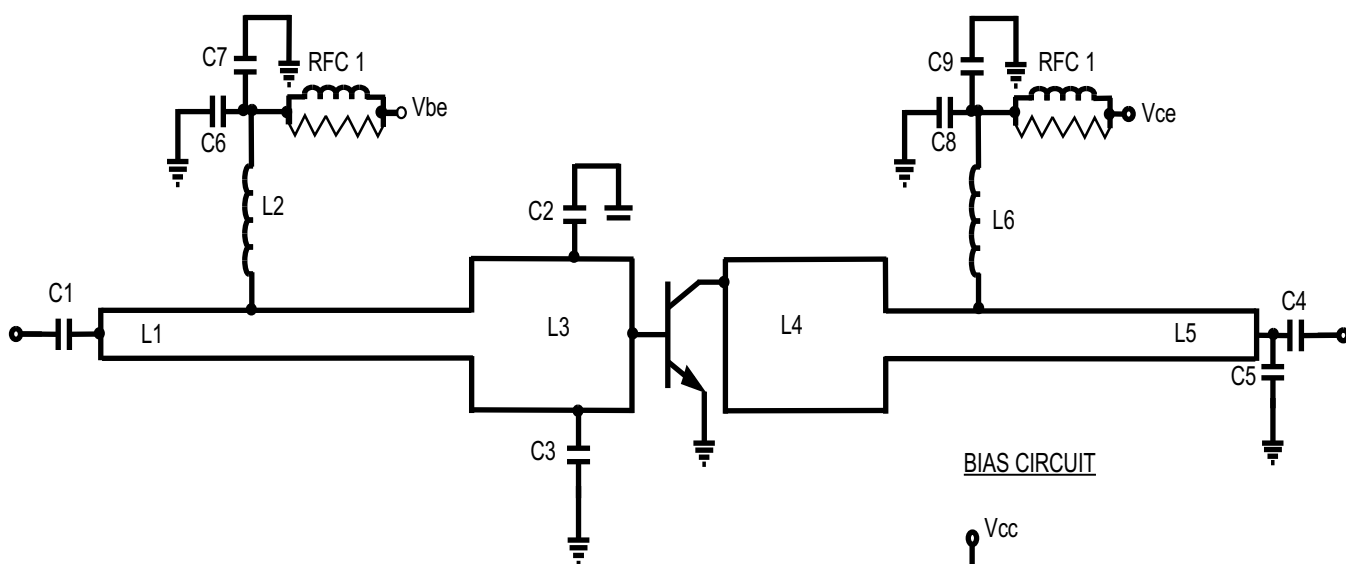
Note 1: F1=860 MHz, F2=863.5 MHz, F3=864.5 Mhz

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

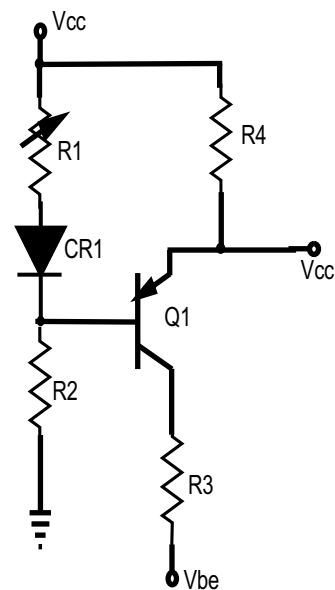
Initial Issue June, 1994

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BIAS CIRCUIT



C1,C4=100 ATC "B"

C2,C3= 8.2 pf ATC

C5= 2.0 pf

C6,C8= 1mF TANT

C7,C9= 1mF 50V

L2=3.3mH molded Ind.

L6= 100W Stripline

RFC1=5 Turns, 24Awg on 125ml Toroid

RFC2 in parallel with 15 1/2 Resistor

L5,L1= 50W Stripline 2" long

L4,L3= 34W Stripline 300 mils long

R1= 500 ohm Pot

R2= 4.7 Kohm 1/4 W

R3= 47 ohm 1/4 W

R4= 1 ohm 3 Watt, 1%

Cr1= IN 4148

Q1= MJE 172