GHz TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

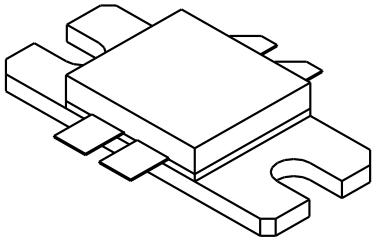
UTV65B

65 Watts Pk, 28 Volts, Class AB
UHF Television - Band IV & V

GENERAL DESCRIPTION

The UTV65B is a COMMON EMITTER transistor capable of providing 65 Watts Peak, Class AB, RF Output Power over the band 470-860 MHz. The transistor includes double input and output prematching for full broadband capability. Gold Metalization and Diffused Ballasting are used to provide high reliability and supreme ruggedness.

CASE OUTLINE
55RT, STYLE 2



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25ºC	175 Watts
Maximum Voltage and Current	
BVcbo Collector to Emiter Voltage	50 Volts
BVceo Collector to Emitter Voltage	28 Volts
BVebo Emitter to Base Voltage	4 Volts
Ic Collector Current	10 Amps
Maximum Temperatures	
Storage Temperature	-40 to + 150ºC
Operating Junction Temperature	+ 200 ºC

ELECTRICAL CHARACTERISTICS @ 25 ºC

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output - db Compress	F = 470 - 860 MHz	65			Watts
Po - Ref	Power Output - Linear	F = 470 - 860 MHz	15			Watts
Pin	Power Input	Vcc = 28 Volts			2.4	Watts
Pg	Power Gain	Icq = 0.2 Amps	8.5			dB
Ir	Efficiency		55			%
VSWR	Load Mismatch Tolerance	Pout = 15 Watts Pk		5:1		

* European Test Method, Vision = -8 dB, Sideband = - 16 dB, Sound = - 7 dB

LVceo	Collector to Emitter Breakdown	Ic = 10 mA	28			Volts
BVces	Collector to Base Breakdown	Ic = 20 mA	50			Volts
BVebo	Emitter to Base Breakdown	Ie = 10 mA	3.5			Volts
Hfe	Current Gain	Vce = 5 V, Ic = 1 A	20		120	
Cob	Output Capacitance - (each side)*	Vcb = 28V, f= 1MHz		42		pF
θjc	Thermal Resistance	Tc = 25 ºC			1.0	ºC/W

* Not measureable due to internal prematch network

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