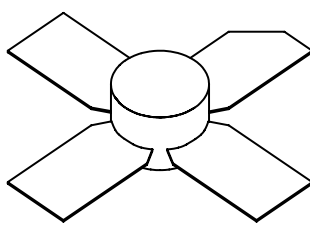


UTV005P

0.5 Watts, 20 Volts, Class A
UHF Television - Band IV & V

<p>GENERAL DESCRIPTION</p> <p>The UTV005P is a COMMON EMITTER transistor capable of providing 0.5 Watts 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 55FU-1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation Device Dissipation @ 25°C 8 W</p> <p>Maximum Voltage and Current</p> <p>Collector to Base Voltage (BV_{ces}) 45 V Emitter to Base Voltage (BV_{ebo}) 4.0 V Collector to Emitter Voltage (BV_{ceo}) 3.5 V Collector Current (I_c) 750 mA</p> <p>Maximum Temperatures</p> <p>Storage Temperature -65 to +150 °C Operating Junction Temperature +200 °C</p>	

ELECTRICAL CHARACTERISTICS @ 25°C

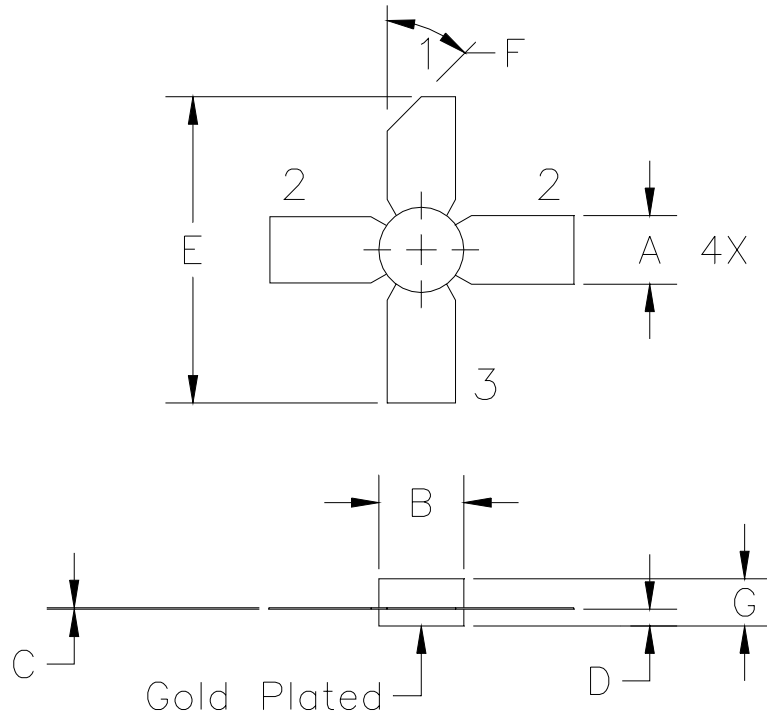
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Output – Peak synch	F = 470-860 MHz	0.5			W
P _{in}	Power Input	V _{cc} = 20 Volts			50	mW
P _g	Power Gain	I _c = 220 mA		11		dB
IMD	Intermodulation Distortion	P _{ref} = 0.5 W		-60		dBc
VSWR	Load Mismatch Tolerance	F = 860 MHz			10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BV _{ceo}	Emitter to Base Breakdown	I _e = 20 mA	24			V
BV _{ces}	Collector to Emitter Breakdown	I _c = 10 mA	45			V
BV _{ebo}	Emitter to Base Breakdown	I _e = 1 mA	3.5			V
h _{FE}	DC – Current Gain	V _{ce} = 5V, I _c = 100 mA	20			
C _{ob}	Capacitance			5.0		pF
θ _{jc} ¹	Thermal Resistance				22	°C/W

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

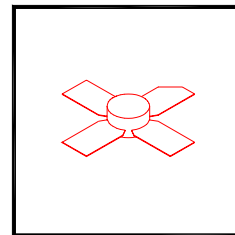
European test method, Vision = - 8dB, Sideband= - 16dB, Sound = -7 dB



STYLE 1:
 PIN1 = COLLECTOR
 2 = BASE (2X)
 3 = EMITTER

STYLE 2:
 PIN1 = COLLECTOR
 2 = EMITTER (2X)
 3 = BASE

DIM	MILLIMETER	±TOL	INCHES	±TOL
A	5.71	.13	.225	.005
B	7.11 DIA	.13	.280 DIA	.005
C	0.13	.02	.005	.001
D	1.40	.13	.055	.005
E	25.53	.64	1.005	.025
F	45°	5°	45°	5°
G	3.94	REF	.155	REF



GHZ TECHNOLOGY
 RF - MICROWAVE SILICON POWER TRANSISTORS

DWG NO.

55FU