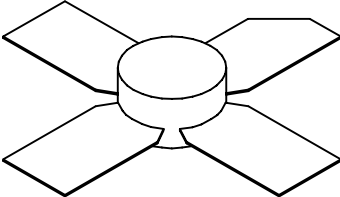




UMIL10P

10 Watts, 28 Volts, Class AB
UHF Communications 100 – 400 MHz

ADVANCED RELEASE

<p>GENERAL DESCRIPTION</p> <p>The UMIL10P is a COMMON EMITTER broadband transistor specifically intended for use in the 100-400 MHz frequency band. It may be operated in Class AB or C. Gold metallization and silicon diffused resistors ensure ruggedness and high reliability.</p>	<p>CASE OUTLINE 55FU Style 2</p>  <p>Backside Surface is Gold Metalized</p>
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation Device Dissipation @25°C 28 W</p> <p>Maximum Voltage and Current Collector to Base Voltage (BV_{ces}) 55 V Emitter to Base Voltage (BV_{ebo}) 4.0 V Collector Current (I_c) 1.5 A</p> <p>Maximum Temperatures Storage Temperature -65 to +150 °C Operating Junction Temperature +200 °C</p>	

ELECTRICAL CHARACTERISTICS @ 25°C

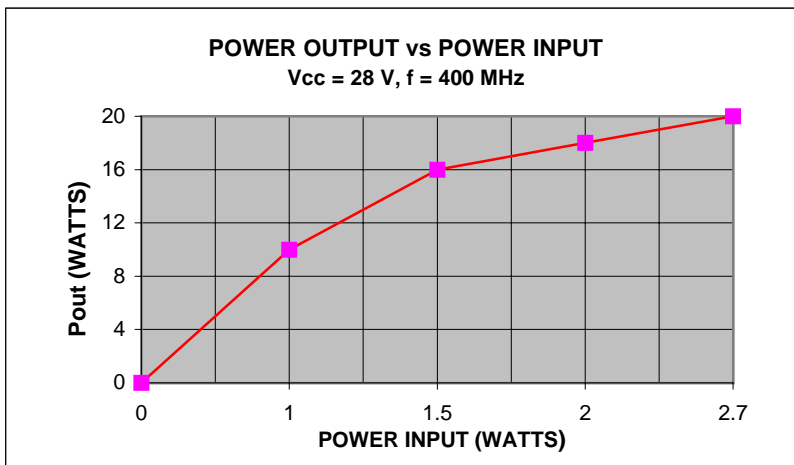
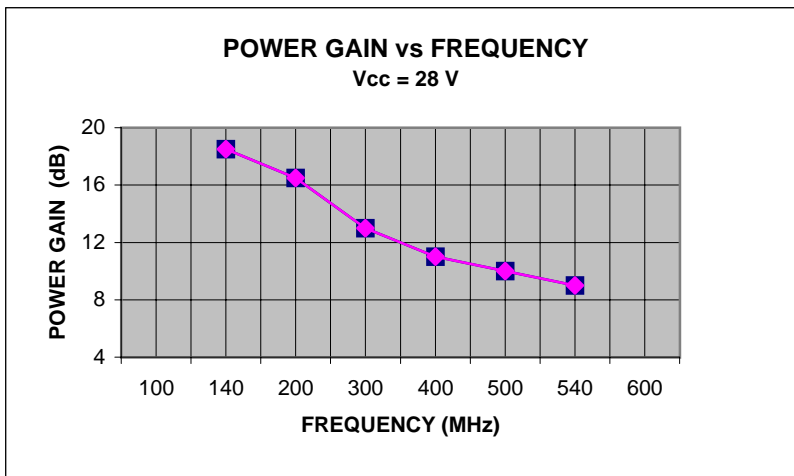
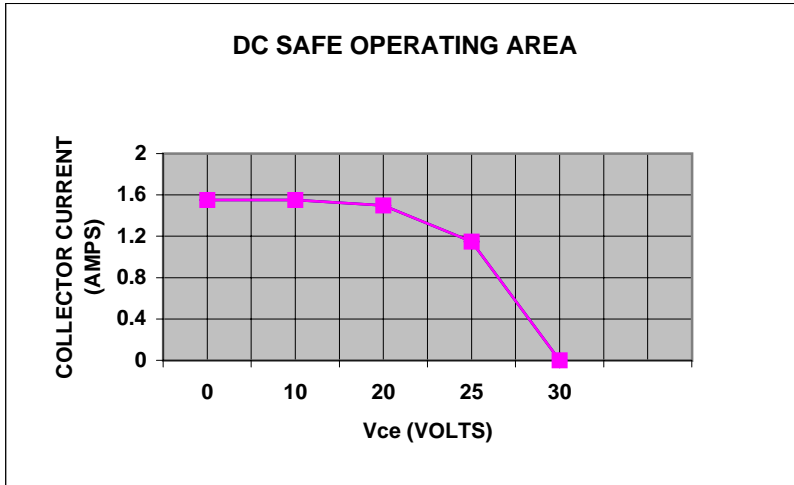
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Out	F = 400 MHz	10			W
P _{in}	Power Input	V _{CC} = 28 Volts, P _{out} = 10W			1.0	W
P _g	Power Gain		10.0			dB
η _c	Collector Efficiency		45	50		%
VSWR	Load Mismatch Tolerance				10:1	ψ

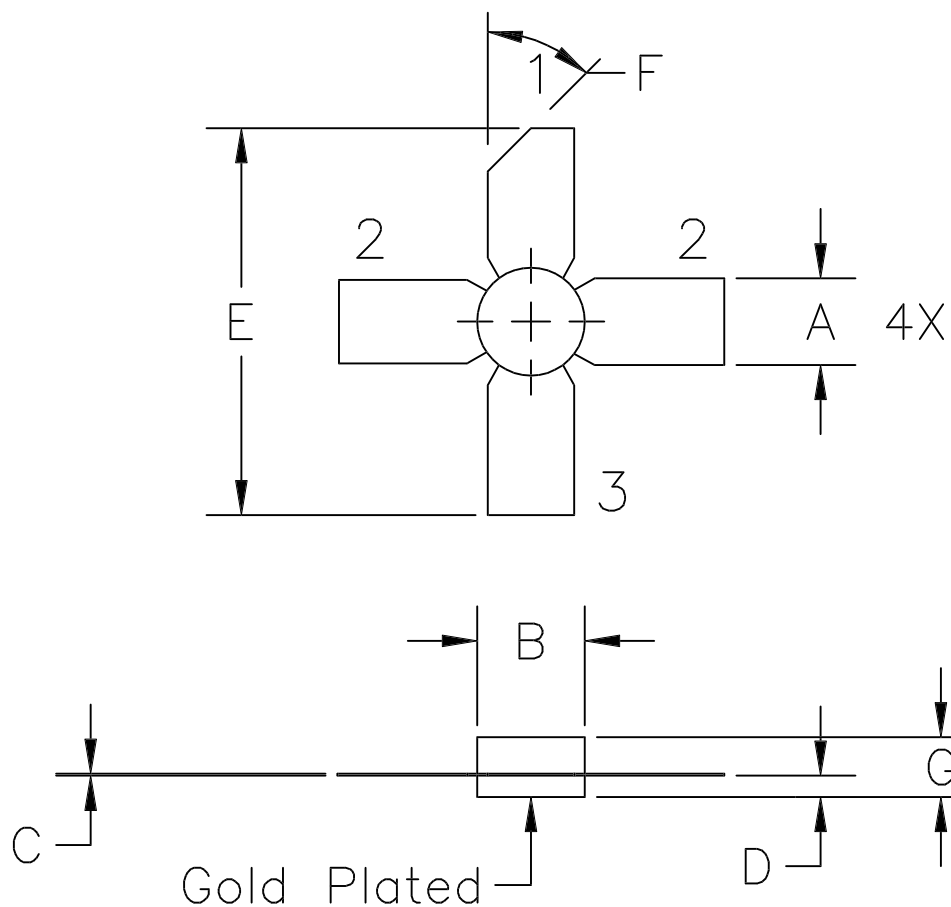
FUNCTIONAL CHARACTERISTICS @ 25°C

BV _{ebo}	Emitter to Base Breakdown	I _e = 5 mA	4.0			V
BV _{ces}	Collector to Emitter Breakdown	I _c = 50 mA	55			V
BV _{ceo}	Collector to Emitter Breakdown	I _e = 50 mA	30			V
Cob	Output Capacitance	V _{cb} = 28V, F = 1 MHz		11.5		PF
h _{FE}	DC – Current Gain	V _{ce} = 5V, I _c = 200mA	10		150	β
θ _{jc}	Thermal Resistance				6.3	°C/W

Initial Issue May 1999

UMIL10P





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

