

UMIL 10

100 Watts, 28 Volts, Class AB or C
Defcom 100 - 400 MHz

GENERAL DESCRIPTION

The UMIL10 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.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 28 Watts

Maximum Voltage and Current

BVces Collector to Emitter Voltage 55 Volts

BVebo Emitter to Base Voltage 4.0 Volts

Ic Collector Current 1.5 A

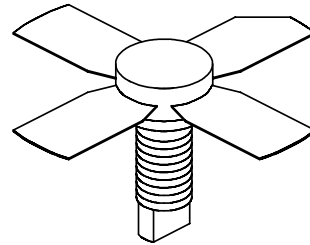
Maximum Temperatures

Storage Temperature - 65 to +150°C

Operating Junction Temperature +200°C

CASE OUTLINE

55FT, Style 2



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Output	F = 400 MHz	10			Watts
P_{in}	Power Input	V _{cc} = 28 Volts			1.0	Watts
P_g	Power Gain	Class C Bias	10.0			dB
η_c	Efficiency			60		%
VSWR	Load Mismatch Tolerance				30:1	

BVebo	Emitter to Base Breakdown	I _e = 5 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	I _c = 50 mA	55			Volts
BVceo	Collector to Emitter Breakdown	I _e = 50 mA	30			Volts
Cob	Output Capacitance	V _{cb} = 28 V, F = 1 MHz		11.5		pF
h_{FE}	DC - Current Gain	V _{ce} = 5 V, I _c = 200 mA	10			
θ_{jc}	Thermal Resistance				6.3	°C/W

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