

UMIL 100A

100 Watts, 28 Volts, Class AB Defcom 225 - 400 MHz

GENERAL DESCRIPTION

The UMIL100A is a double input matched COMMON EMITTER broadband transistor specifically intended for use in the 225-400 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

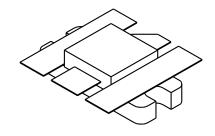
Maximum Power Dissipation @ 25°C 270 Watts

Maximum Voltage and Current

BVces Collector to Emiter Voltage 65 Volts
BVebo Emitter to Base Voltage 4.0 Volts
Ic Collector Current 20 A

Maximum Temperatures

Storage Temperature $-65 \text{ to } +150^{\circ}\text{C}$ Operating Junction Temperature $+150^{\circ}\text{C}$ CASE OUTLINE 55JU, Style 2



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout Pin Pg ηc VSWR	Power Output Power Input Power Gain Efficiency Load Mismatch Tolerance	F = 400 MHz Vcc = 28 Volts	100 7.2	8.5 55	19 5:1	Watts Watts dB %

BVebo	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	Ic = 100 mA	60			Volts
BVceo	Collector to Emitter Breakdown	Ie = 50 mA	31			Volts
BVcbo	Collector to Base Breakdown	Ic = 100 mA	60			Volts
Icbo	Collector to Base Current	Vc = 30 Volts			50	mA
Cob	Output Capacitance	Vcb = 28 V, F = 1 MHz		120		pF
$\mathbf{h}_{ ext{FE}}$	DC - Current Gain	Vce = 5 V, Ic = 1 A	10			
θјс	Thermal Resistance				0.7	°C/W

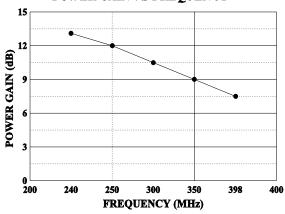
Issue August 1996

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UMIL100A



POWER GAIN VS FREQUENCY



POWER OUTPUT vs POWER INPUT

