

1075 MP

75 Watt, 50 Volts, Class C Avionics 1025 - 1150 MHz

GENERAL DESCRIPTION

The 1075 MP is a COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 1025-1150 MHz. The device has gold thin-film metallization for proven highest MTTF. The transistor includes input prematch for broadband capability. Low thermal resistance package reduces junction temperature, extends life.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C² 250 Watts Pk

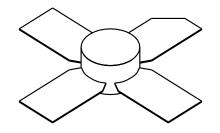
Maximum Voltage and Current

BVces Collector to Emitter Voltage 65 Volts
BVebo Emitter to Base Voltage 3.5 Volts
Ic Collector Current 6.5 Amps Pk

Maximum Temperatures

Storage Temperature $-65 \text{ to} + 150^{\circ}\text{C}$ Operating Junction Temperature $+200^{\circ}\text{C}$

CASE OUTLINE 55FU, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout Pin Pg ηc VSWR	Power Out Power Input Power Gain Efficiency Load Mismatch Tolerance	F= 1025-1150 MHz Vcc = 50 Volts PW = 10 μsec DF = 1% F = 1090 MHz	75 7.5	9.0 40	13 20:1	Watts Watts dB %

BVebo BVces Hfe Cob	Emitter to Base Breakdown Collector to Emitter Breakdown DC Current Gain to Emitter Output Capacitance	Ie = 5 mA Ic = 15mA Vce = 5V, Ic = 100 mA Vcb = 50 V, f = 1 MHz	3.5 65 20	45	50	Volts Volts pF
θ jc ²	Thermal Resistance	Pulsed			0.6	°C/W

Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

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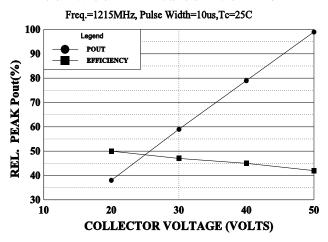
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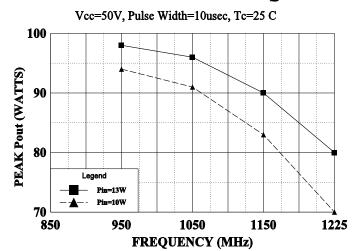


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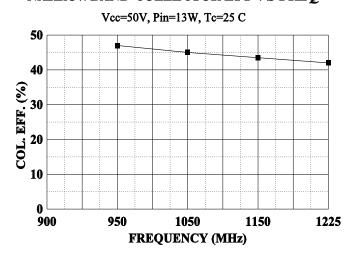
POUT & COL. EFF. VS COL. VOLTAGE



NARROWBAND PEAK POUT VS FREQUENCY



NARROWBAND COLLECTOR EFF VS FREQ



TYPICAL Pout

