GHz TECHNOLOGY
RF·MICROWAVE SILICON POWER TRANSISTORS

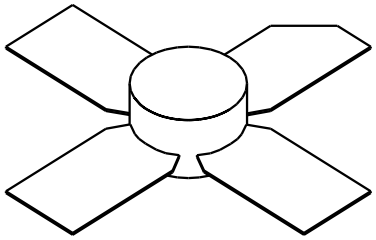
1015 MP

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

GENERAL DESCRIPTION

The 1015 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.

CASE OUTLINE
55FU, STYLE 1



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25ºC[2]	50 Watts Pk

Maximum Voltage and Current

BVces	Collector to Emitter Voltage	65 Volts
BVebo	Emitter to Base Voltage	3.5 Volts
Ic	Collector Current	1.0 Amps Pk

Maximum Temperatures

Storage Temperature	- 65 to + 150ºC
Operating Junction Temperature	+ 200ºC

ELECTRICAL CHARACTERISTICS @ 25 ^{O}C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F= 1025-1150 MHz	15			Watts
Pin	Power Input	Vcc = 50 Volts			1.5	Watts
Pg	Power Gain	PW = 10 μsec	10	11		dB
ηc	Efficiency	DF = 1%		40		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			20:1	

BVebo	Emitter to Base Breakdown	Ie = 5 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic = 15mA	65			Volts
Hfe	DC Current Gain to Emitter	Vce = 5V, Ic = 100 mA	20			
Cob	Output Capacitance	Vcb = 50 V, f = 1 MHz		5.0	7.5	pF
θjc[2]	Thermal Resistance	Pulsed			3.5	ºC/W

Note 1: At rated output power and pulse conditions
2: At rated pulse conditions

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