



1000MP

0.6 Watts, 18 Volts, Class A

Linear to 1150 MHz

GENERAL DESCRIPTION

The 1000MP is a COMMON EMITTER transistor capable of providing 0.6 Watt of Class A, RF output power to 1150 MHz. This transistor is specifically designed for general Class A amplifier applications. It utilizes gold metalization and diffused ballasting to provide high reliability and supreme ruggedness.

CASE OUTLINE

55FW-2
(Common Emitter)

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation

Device Dissipation @ 25°C 5.3 W

Maximum Voltage and Current

Collector to Base Voltage (BV_{ces}) 40 V

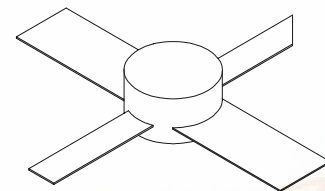
Emitter to Base Voltage (BV_{ebo}) 3.5 V

Collector Current (I_c) 300 mA

Maximum Temperatures

Storage Temperature -40 to +150 °C

Operating Junction Temperature +200 °C



ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{OUT}	Power Output	F = 1000 MHz I_c = 140 mA V_{CC} = 18 Volts	0.6	0.8		W
P_{IN}	Power Input				0.05	W
P_G	Power Gain		10.8			dB
F_T	Transition Frequency		3.4	3.7		GHz
VSWR	Load Mismatch Tolerance				10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

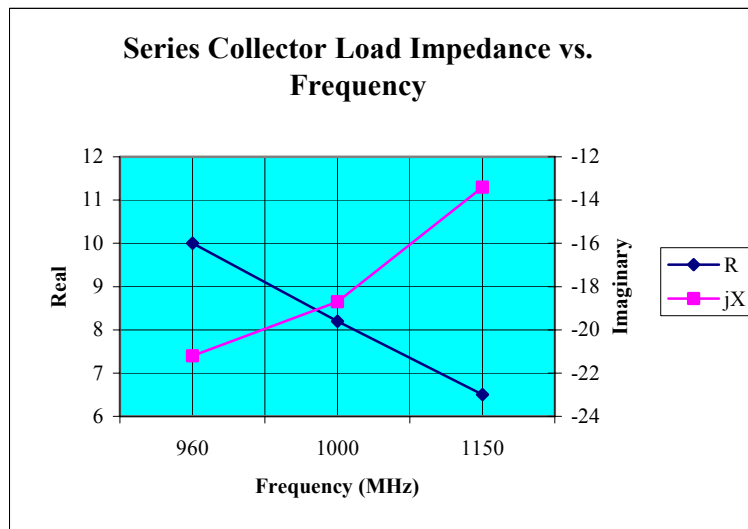
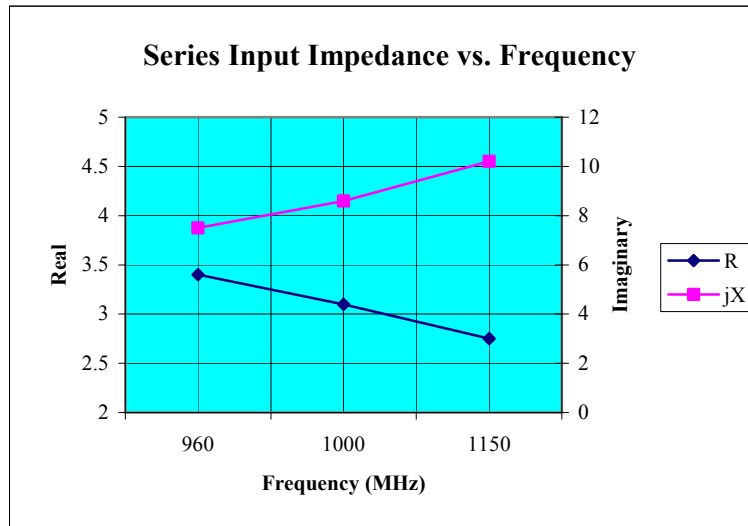
BV_{EBO}	Emitter to Base Breakdown	I_E = 1mA	3.5			V
BV_{CBO}	Collector to Base Breakdown	I_C = 1mA	40			V
BV_{CER}	Collector to Emitter Breakdown	I_{ER} = 5mA, R_{BE} = 10	22			V
I_{CES}	Collector Leakage Current	V_{CE} = 28V				
h_{FE}	DC – Current Gain	V_{CE} = 5V, I_c = 100mA	15		120	
C_{OB}	Capacitance	V_{CB} = 28V, F = 1 MHz		2.0	3.0	pF
θ_{JC}^1	Thermal Resistance				33	°C/W

Note 1: At rated output power

Rev A – Aug 2003

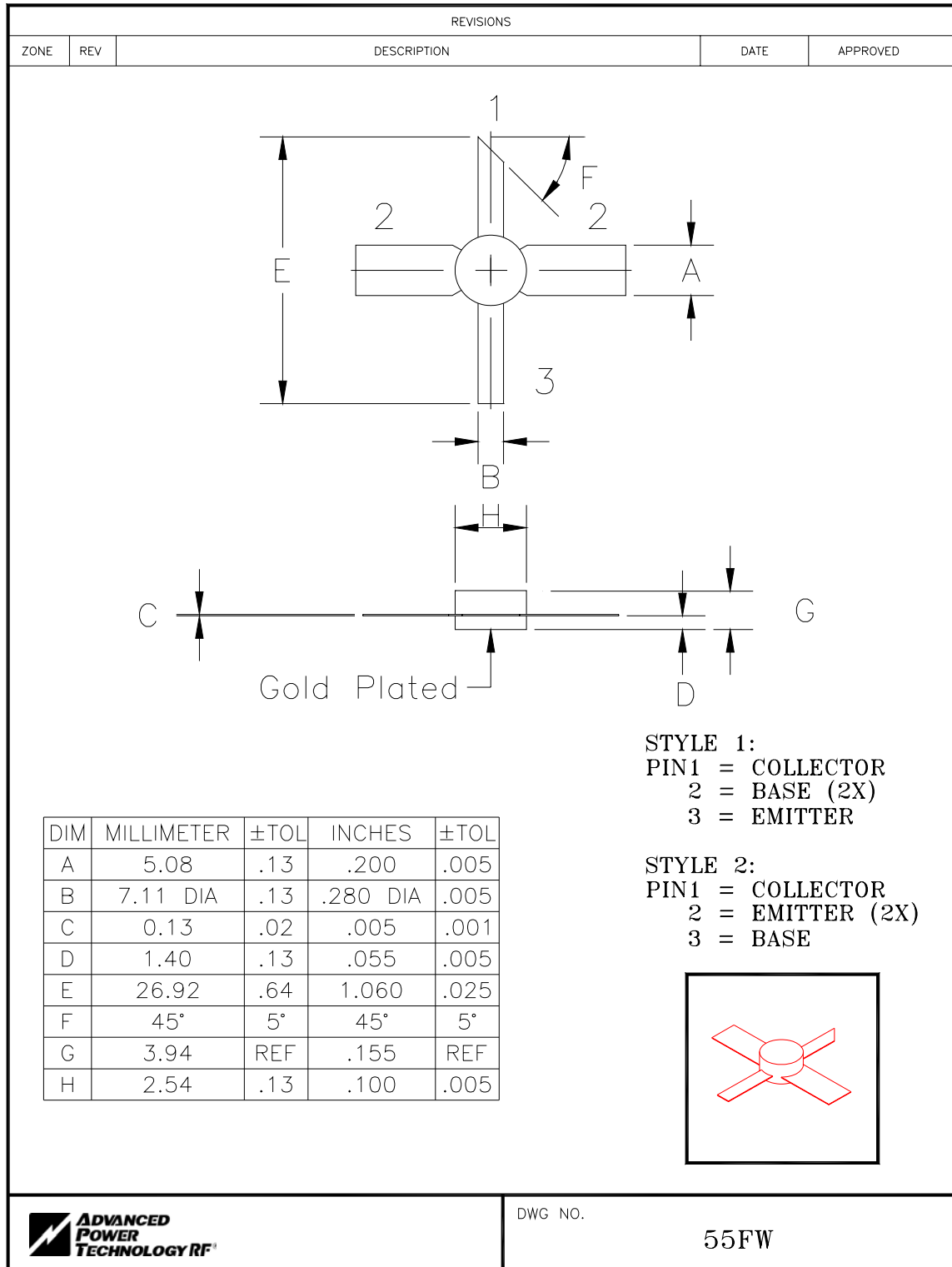


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Frequency (MHz)	Zin		Zcl	
	R	jX	R	jX
960	3.4	7.5	10	-21.2
1000	3.1	8.6	8.2	-18.7
1150	2.75	10.2	6.5	-13.4

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DWG NO.

55FW