



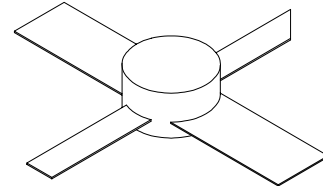
1000MP

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

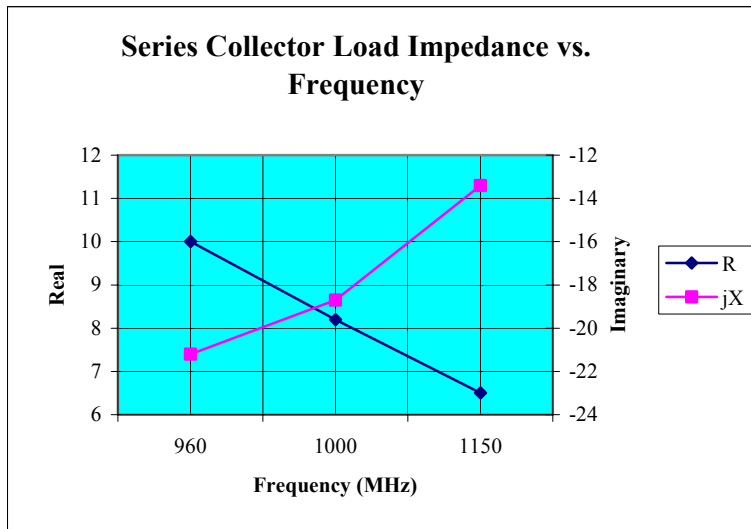
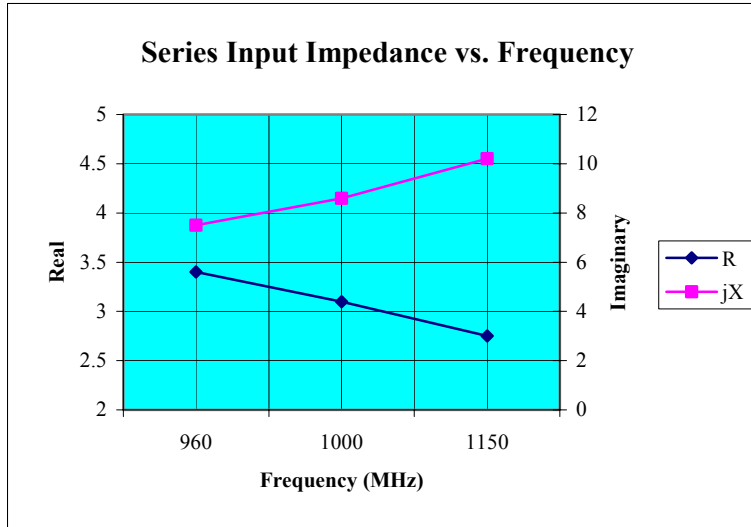
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{OUT}	Power Output	F = 1000 MHz $I_C = 140$ mA $V_{CC} = 18$ Volts	0.6	0.8		W
P_{IN}	Power Input				0.05	W
P_G	Power Gain		10.8			dB
F_T	Transition Frequency		3.4	3.7		GHz
VSWR	Load Mismatch Tolerance				10:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

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

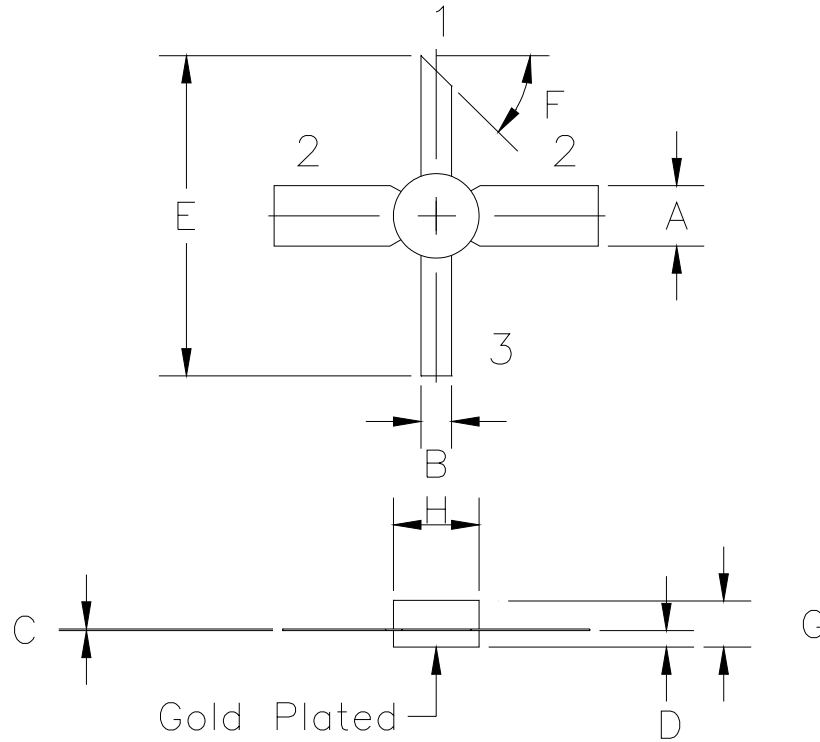
Note 1: At rated output power

Rev A – Aug 2003



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

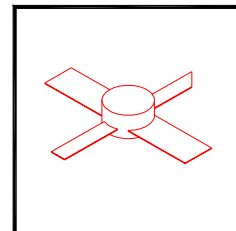
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



STYLE 1:
 PIN1 = COLLECTOR
 2 = BASE (2X)
 3 = EMITTER

STYLE 2:
 PIN1 = COLLECTOR
 2 = EMITTER (2X)
 3 = BASE

DIM	MILLIMETER	±TOL	INCHES	±TOL
A	5.08	.13	.200	.005
B	7.11 DIA	.13	.280 DIA	.005
C	0.13	.02	.005	.001
D	1.40	.13	.055	.005
E	26.92	.64	1.060	.025
F	45°	5°	45°	5°
G	3.94	REF	.155	REF
H	2.54	.13	.100	.005



DWG NO.

55FW