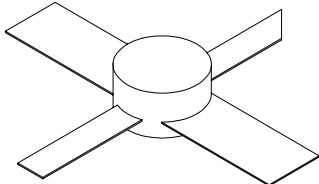




# 1000MP

0.6 Watts, 18 Volts, Class A  
Linear to 1150 MHz

<p><b>GENERAL DESCRIPTION</b></p> <p>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.</p>	<p><b>CASE OUTLINE</b> <b>55FW-2</b> <b>(Common Emitter)</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p><b>Maximum Power Dissipation</b> Device Dissipation @ 25°C                      5.3 W</p> <p><b>Maximum Voltage and Current</b> Collector to Base Voltage (BV<sub>ces</sub>)              40 V Emitter to Base Voltage (BV<sub>ebo</sub>)                3.5 V Collector Current (I<sub>c</sub>)                              300 mA</p> <p><b>Maximum Temperatures</b> Storage Temperature                                -40 to +150 °C Operating Junction Temperature                +200 °C</p>	

**ELECTRICAL CHARACTERISTICS @ 25°C**

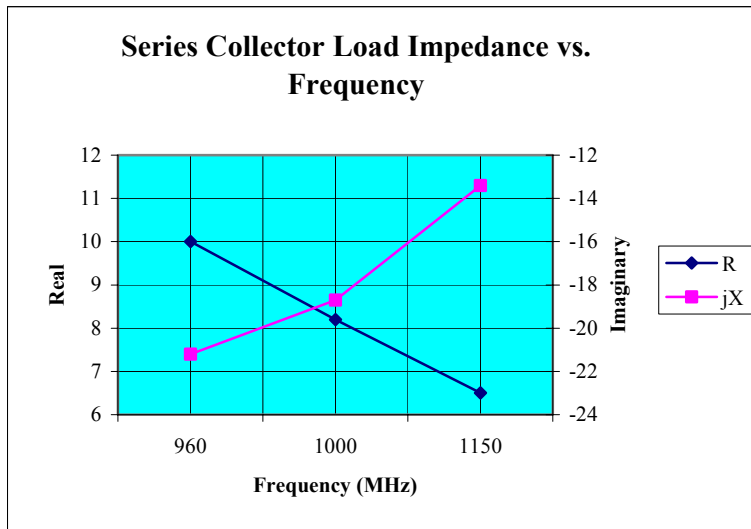
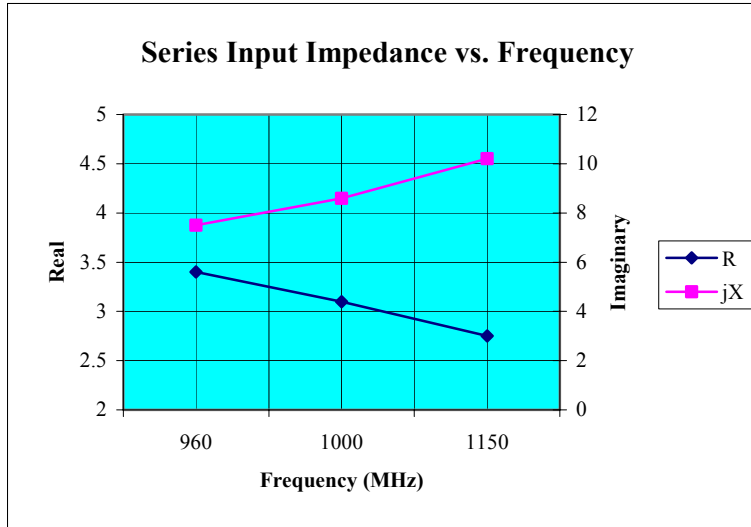
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P <sub>OUT</sub>	Power Output	F = 1000 MHz I <sub>c</sub> = 140 mA V <sub>CC</sub> = 18 Volts	0.6	0.8		W
P <sub>IN</sub>	Power Input				0.05	W
P <sub>G</sub>	Power Gain		10.8			dB
F <sub>T</sub>	Transition Frequency		3.4	3.7		GHz
VSWR	Load Mismatch Tolerance				10:1	

**FUNCTIONAL CHARACTERISTICS @ 25°C**

BV <sub>EBO</sub>	Emitter to Base Breakdown	I <sub>E</sub> = 1mA	3.5			V
BV <sub>CBO</sub>	Collector to Base Breakdown	I <sub>C</sub> = 1mA	40			V
BV <sub>CER</sub>	Collector to Emitter Breakdown	I <sub>ER</sub> = 5mA, R <sub>BE</sub> = 10	22			V
I <sub>CES</sub>	Collector Leakage Current	V <sub>CE</sub> = 28V				
h <sub>FE</sub>	DC – Current Gain	V <sub>CE</sub> = 5V, I <sub>c</sub> = 100mA	15		120	
C <sub>OB</sub>	Capacitance	V <sub>CB</sub> = 28V, F = 1 MHz		2.0	3.0	pF
θ <sub>JC</sub> <sup>1</sup>	Thermal Resistance				33	°C/W

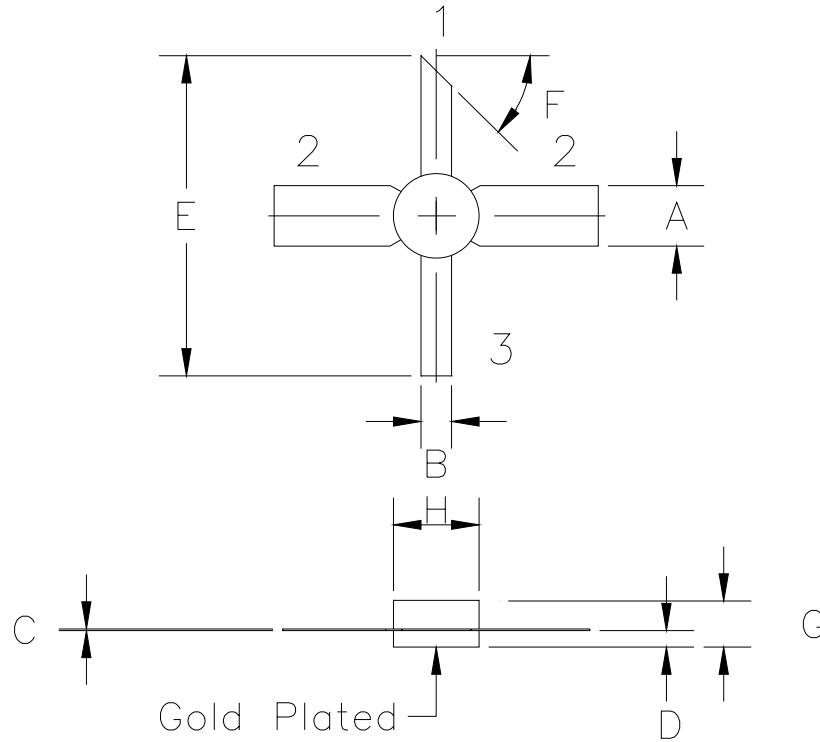
Note 1: At rated output power

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

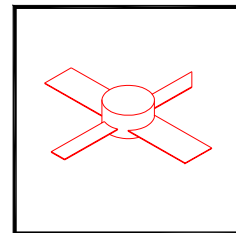
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



**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**