

TPR 700

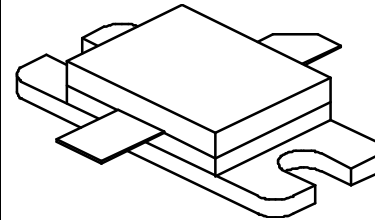
700 Watts, 50 Volts, Pulsed
Avionics 1030 – 1090 MHz

GENERAL DESCRIPTION

The TPR 700 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 1030-1090 MHz. The device has gold thin-film metallization for proven highest MTTF. The transistor includes input returns for **fast rise time**. Low thermal resistance package reduces junction temperature, extends life.

CASE OUTLINE

**55KT, Style 1
Common Base**



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C ²	2050 Watts
Maximum Voltage and Current	
BVces Collector to Base Voltage	65 Volts
BVebo Emitter to Base Voltage	3.5 Volts
Ic Collector Current	55 Amps
Maximum Temperatures	
Storage Temperature	- 65 to + 200°C
Operating Junction Temperature	+ 200°C

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 1030 MHz	700			Watts
Pin	Power Input	Vcc = 50 Volts			150	Watts
Pg	Power Gain	PW = 10 μsec	6.7			dB
hc	Collector Efficiency	DF = 1%		35		%
tr	Rise Time				70	ns
VSWR	Load Mismatch Tolerance	F = 1030 MHz			30:1	
BVebo³	Emitter to Base Breakdown	Ie = 50mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic = 100mA	65			Volts
hFE	DC - Current Gain	Ic = 1000mA, Vce = 5 V	10			
qjc²	Thermal Resistance				0.08	°C/W

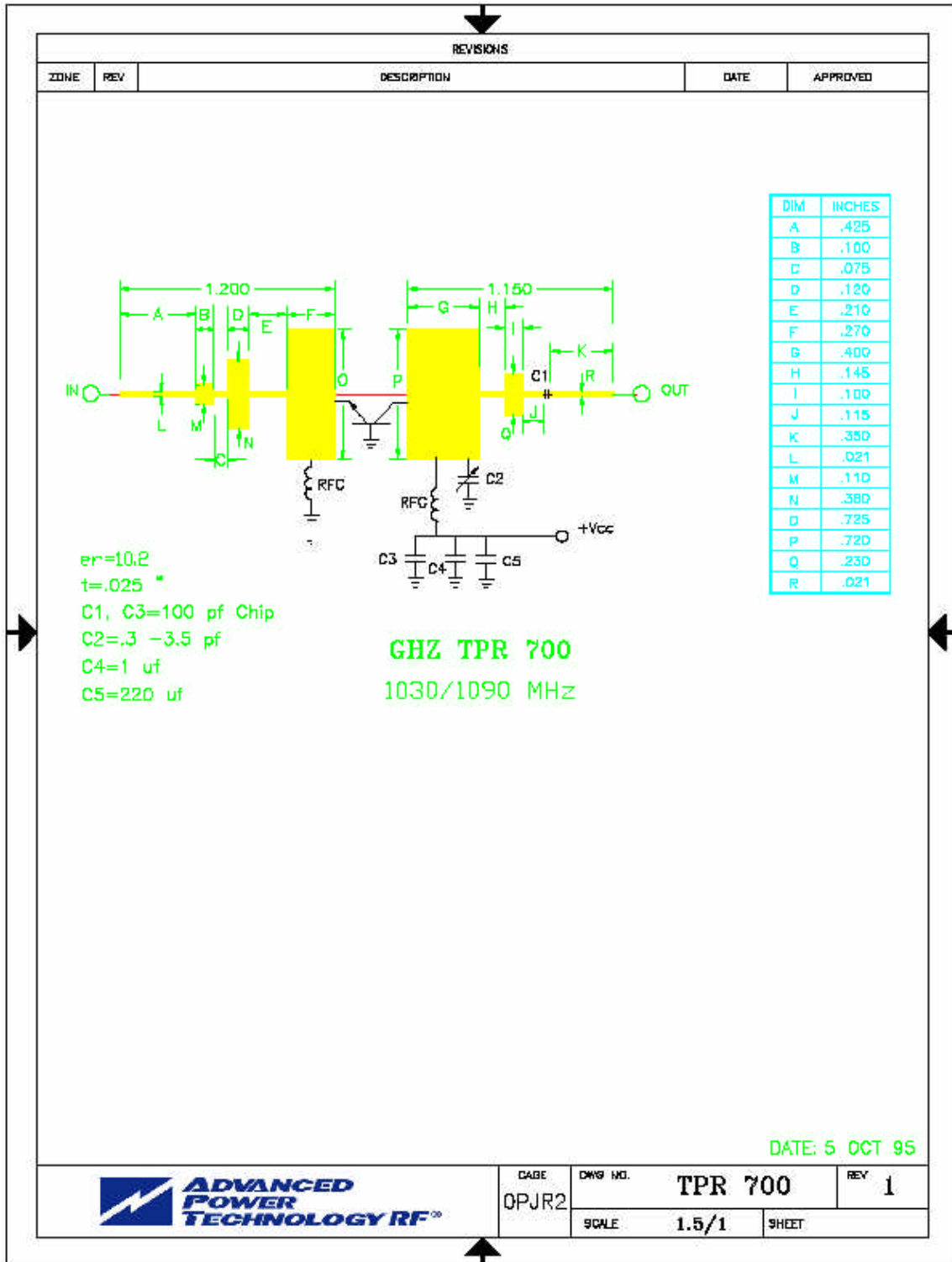
Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

3: Cannot measure due to input return

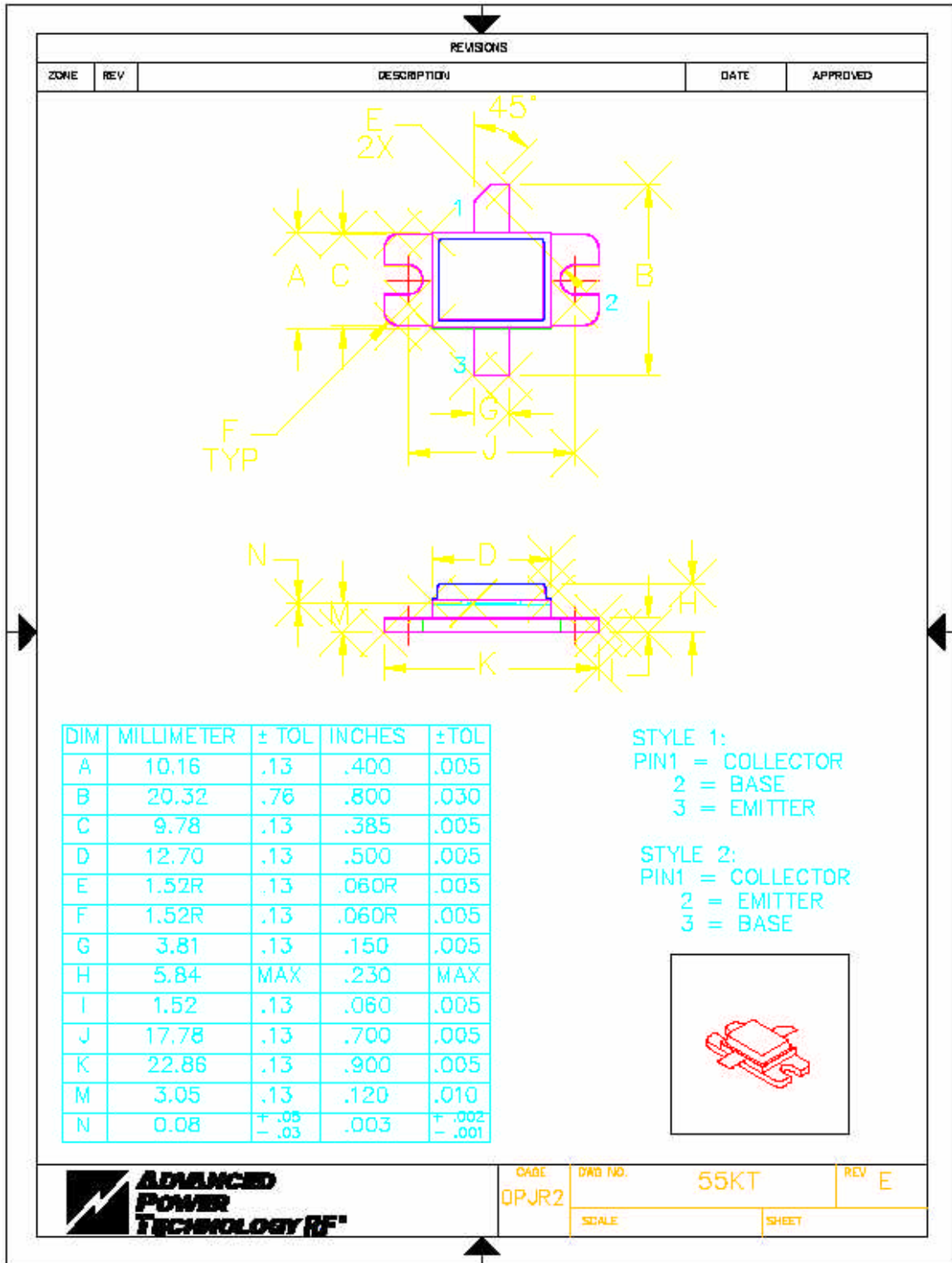
Rev A. – Sept 2005

TPR700



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TPR700



CAGE
0PJR2

DWG NO.

55KT

REV E

SCALE

SHEET