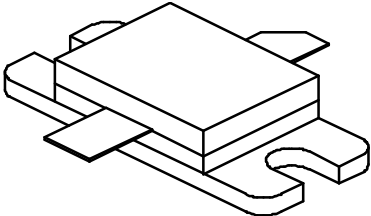


TPR 700

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

<p>GENERAL DESCRIPTION</p> <p>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 MTF. The transistor includes input returns for fast rise time. Low thermal resistance package reduces junction temperature, extends life.</p>	<p>CASE OUTLINE 55KT, Style 1 Common Base</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C² 2050 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Base Voltage 65 Volts BVebo Emitter to Base Voltage 3.5 Volts Ic Collector Current 55 Amps</p> <p>Maximum Temperatures</p> <p>Storage Temperature - 65 to + 200°C Operating Junction Temperature + 200°C</p>	

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Out	F = 1030 MHz	700			Watts
P_{in}	Power Input	V _{cc} = 50 Volts			150	Watts
P_g	Power Gain	PW = 10 μsec	6.7			dB
h_c	Collector Efficiency	DF = 1%		35		%
t_r	Rise Time				70	ns
VSWR	Load Mismatch Tolerance	F = 1030 MHz			30:1	
BVebo³	Emitter to Base Breakdown	I _e = 50mA	3.5			Volts
BVces	Collector to Emitter Breakdown	I _c = 100mA	65			Volts
h_{FE}	DC - Current Gain	I _c = 1000mA, V _{ce} = 5 V	10			
qjc²	Thermal Resistance				0.08	°C/W

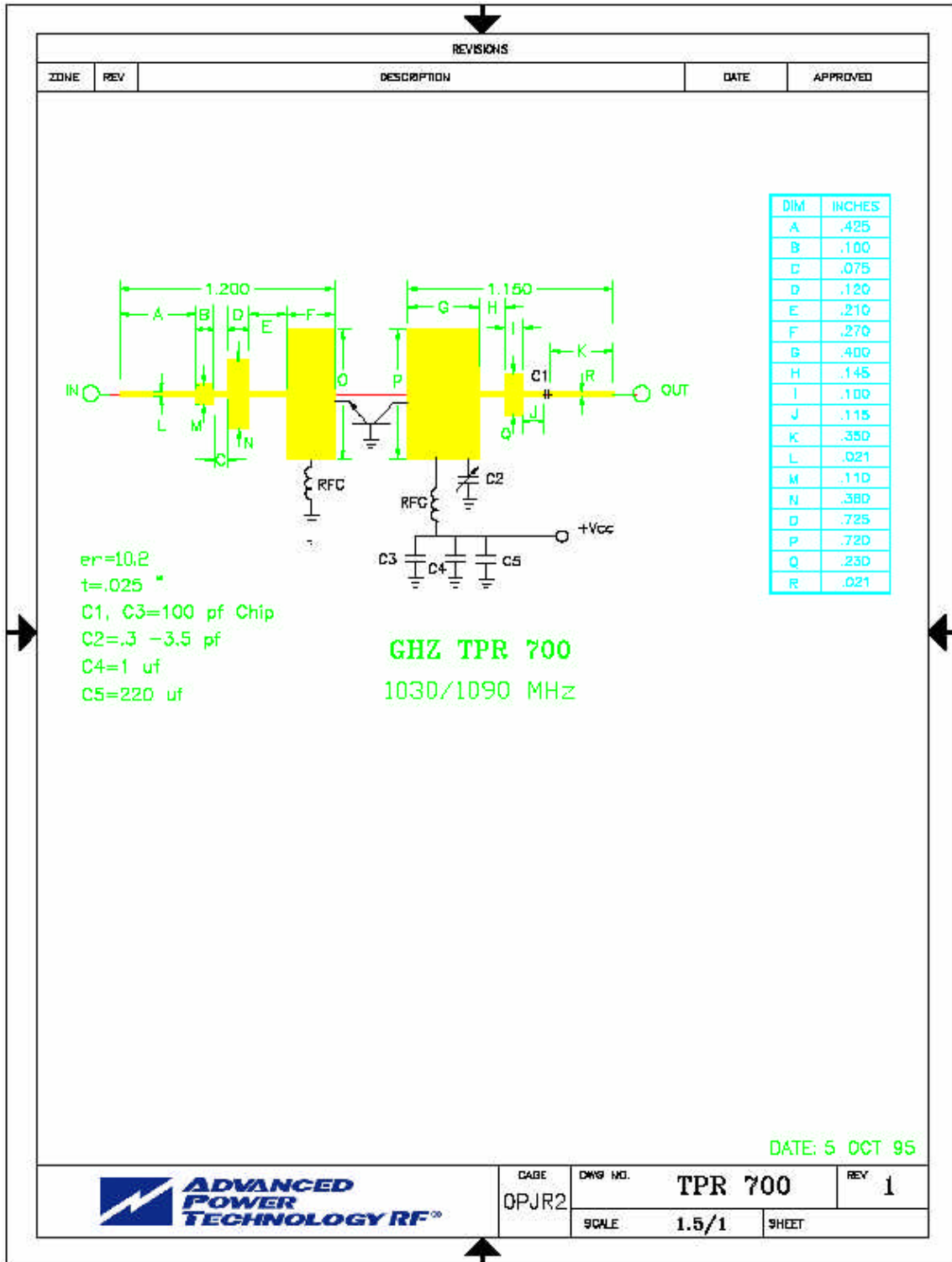
Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

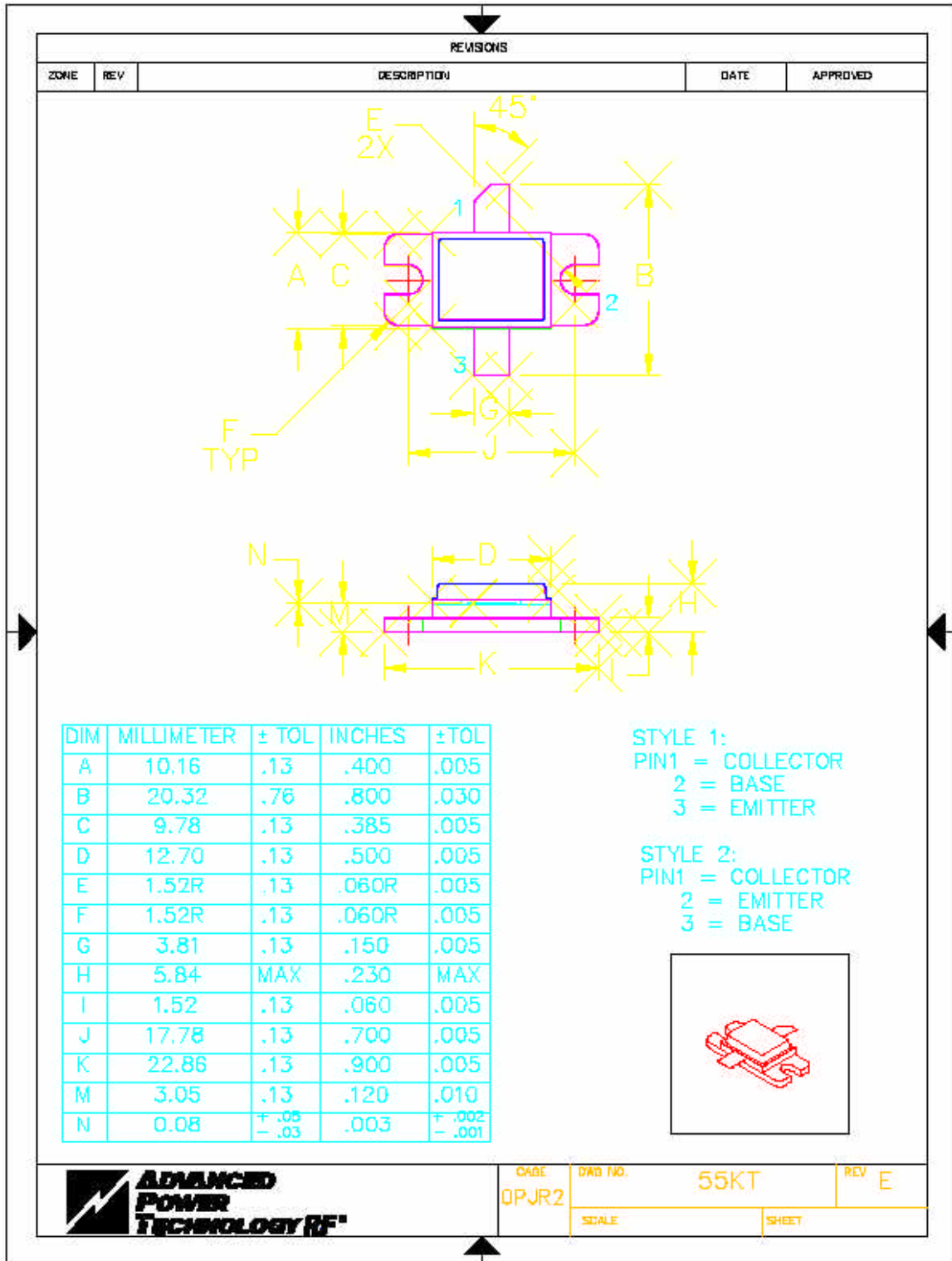
3: Cannot measure due to input return

Rev A. – Sept 2005

TPR700



TPR700



CAGE
0PJR2

DWG NO.

55KT

REV E

SCALE

SHEET