



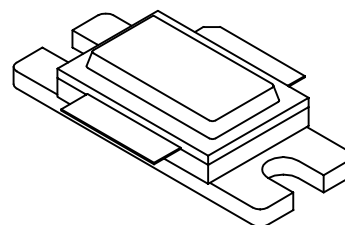
TAN 350

350 Watts, 50 Volts, Pulsed Avionics 960 – 1215 MHz

GENERAL DESCRIPTION

The TAN 350 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 960-1215 MHz. The device has gold thin-film metallization and diffused ballasting for proven highest MTTF. The transistor includes input and output prematch for broadband capability. Low thermal resistance package reduces junction temperature, extends life.

CASE OUTLINE 55ST Style 1



ABSOLUTE MAXIMUM RATINGS

Power Dissipation

Device Dissipation @25°C (P_d) 1450 W (At rated pulse condition)

Voltage and Current

Collector to Base Voltage (BV_{ces}) 65 V

Emitter to Base Voltage (BV_{ebo}) 2.0 V

Collector Current (I_c) 40 A

Temperatures

Storage Temperature -65 to +200 °C

Operating Junction Temperature +230 °C

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Out	F = 960 – 1215 MHz	350			W
P_{in}	Power Input	$V_{CC} = 50$ Volts			70	W
P_g	Power Gain	PW = 10 μ sec	7.0	7.5		dB
η_c	Collector Efficiency	DF = 10%	38	40		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz	3:1			

FUNCTIONAL CHARACTERISTICS @ 25°C

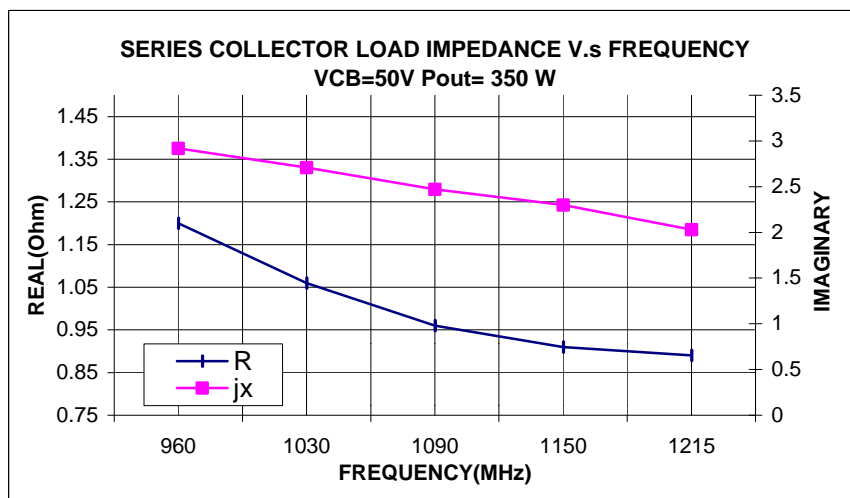
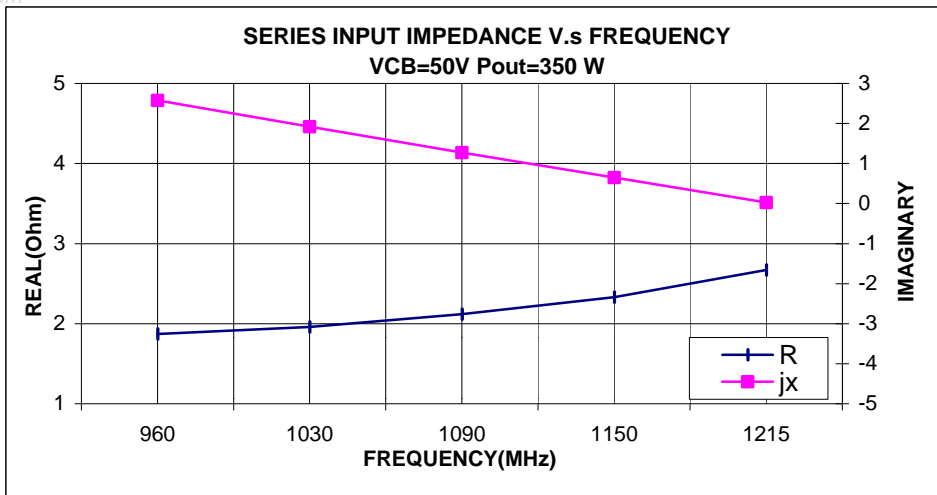
BV_{ebo}	Emitter to Base Breakdown	$I_e = 25$ mA	2.0			V
BV_{ces}	Collector to Emitter Breakdown	$I_c = 50$ mA	65			V
h_{FE}	DC – Current Gain	$I_c = 1$ A, $V_{ce} = 5$ V	10			
θ_{jc}^2	Thermal Resistance			.12		°C/W

TAN350

PW 10uS, DF=10%

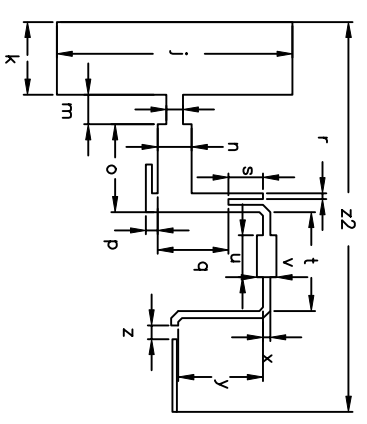
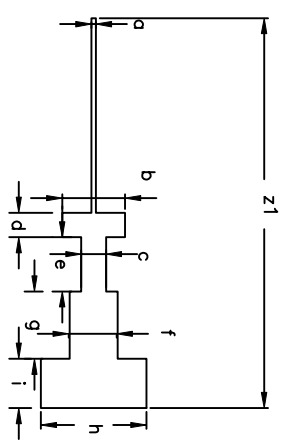
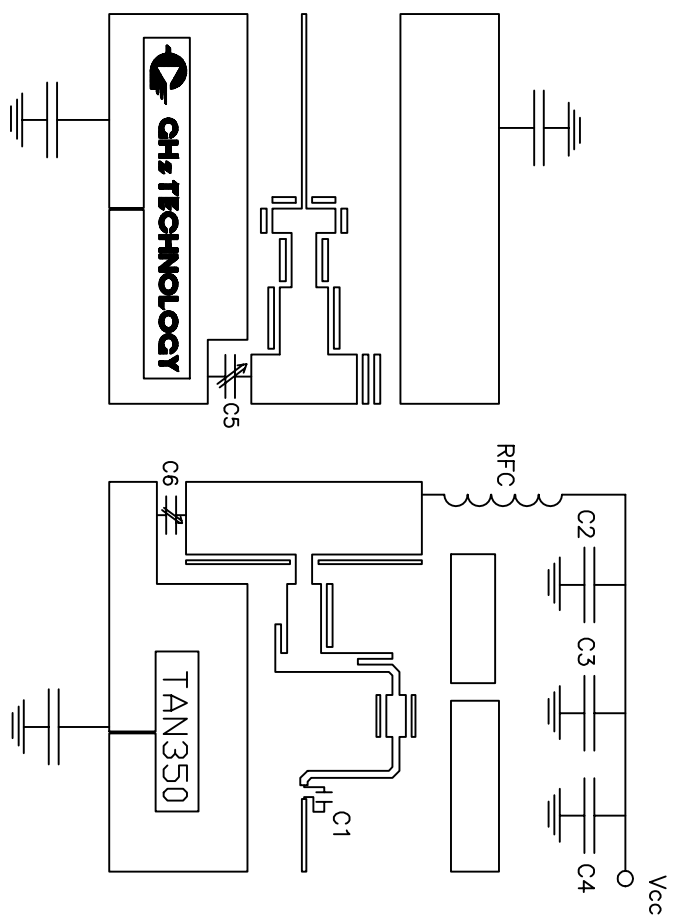
Frequency	Zin		ZCL	
	R	jx	R	jx
960	1.87	2.58	1.2	2.92
1030	1.96	1.92	1.06	2.71
1090	2.12	1.27	0.96	2.47
1150	2.33	0.65	0.91	2.3
1215	2.67	0.03	0.89	2.03

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NOTES, UNLESS OTHERWISE SPECIFIED:

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DIM	inches	DIM	inches
a	.0233	n	.175
b	.323	o	.450
c	.127	p	.060
d	.125	q	.364
e	.278	r	.030
f	.247	s	.177
g	.345	t	.507
h	.5417	u	.215
i	.253	v	.100
j	1.210	x	.037
k	.370	y	.435
l	.084	z	.070
m	.152	z1, z2	2.000

RFC 5T #22AWG .200" Dia
 C1 = C4 = 910f ATC B
 C2 = 1000uF 63V Electrolytic
 C3 = 0.01uF ATC A
 C5=C6= 0-3.5pf Johanson trimmer capacitors
 Vcc = 50 V.

TOLERANCES
 UNLESS OTHERWISE SPECIFIED
 DIMS ±.01
 .XXX ±.005
 ANGLES ±5°

MATERIAL:
 Duroid Material
 Er = 10.2
 H = 25 mils
 T = 1.0 Oz.

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3000 OAKMEAD VILLAGE DRIVE
 SANTA CLARA, CA 95051-0808

TAN 350

APPROVALS SIGNATURES		DATE
ORIGINATOR		
CHECKED		
APPROVED		
PRODUCT ENG.		
MANUFACTURING		
QA		
MARKETING		
SALES		

SIZE	CAGE CODE	DOC/PART NO.	REV
A	OPJR2	TAN 350	A

SCALE:	FILE:	SHEET:
N/A	TAN 350	4 OF 5

REVISIONS		DATE	APPROVED
LTR	DESCRIPTION		