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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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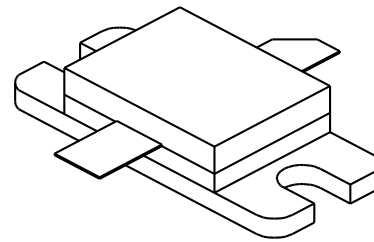
# TAN 300

300 Watts, 50 Volts, Pulsed  
Avionics 960 - 1215 MHz

## GENERAL DESCRIPTION

The TAN 300 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 55KT Style 1



## ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C <sup>2</sup>	1166 Watts
<b>Maximum Voltage and Current</b>	
BVces Collector to Base Voltage	65 Volts
BVebo Emitter to Base Voltage	2.0 Volts
Ic Collector Current	20 Amps
<b>Maximum Temperatures</b>	
Storage Temperature	- 65 to + 200°C
Operating Junction Temperature	+ 200°C

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Out	F = 960-1215 MHz	300			Watts
<b>Pin</b>	Power Input	Vcc = 50 Volts			60	Watts
<b>Pg</b>	Power Gain	PW = 10 μsec	6.6			dB
<b>η<sub>c</sub></b>	Collector Efficiency	DF = 10%		45		%
<b>VSWR</b>	Load Mismatch Tolerance	F = 1090 MHz			10:1	

<b>BVebo</b>	Emitter to Base Breakdown	Ie = 25 mA	2.0			Volts
<b>BVces</b>	Collector to Emitter Breakdown	Ic = 50 mA	65			Volts
<b>h<sub>FE</sub></b>	DC - Current Gain	Ic = 1A, Vce = 5 V	10			
<b>θ<sub>jc</sub><sup>2</sup></b>	Thermal Resistance			.15		°C/W

Note 1: At rated output power and pulse conditions

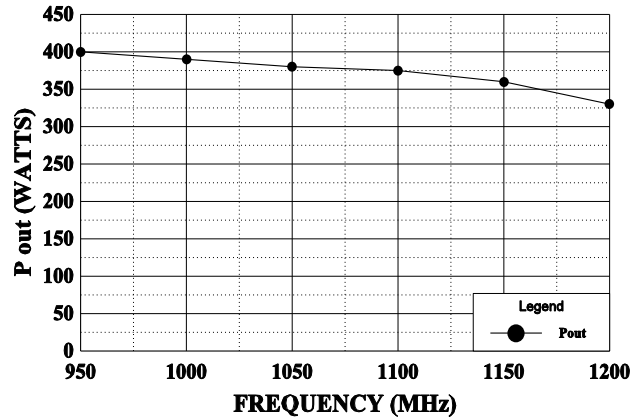
2: At rated pulse conditions

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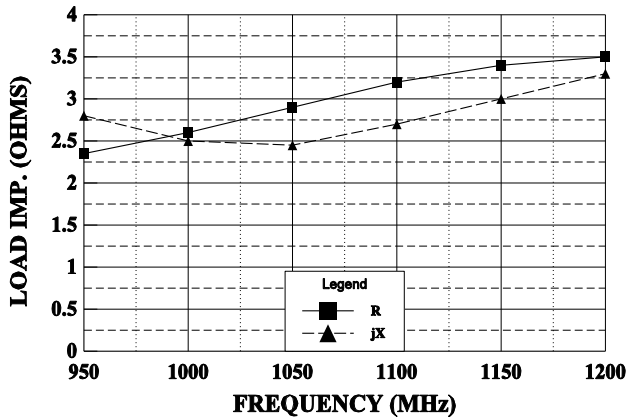
**BROADBAND POWER OUTPUT vs FREQUENCY**

Vcc = 50 V, Pin = 60 W



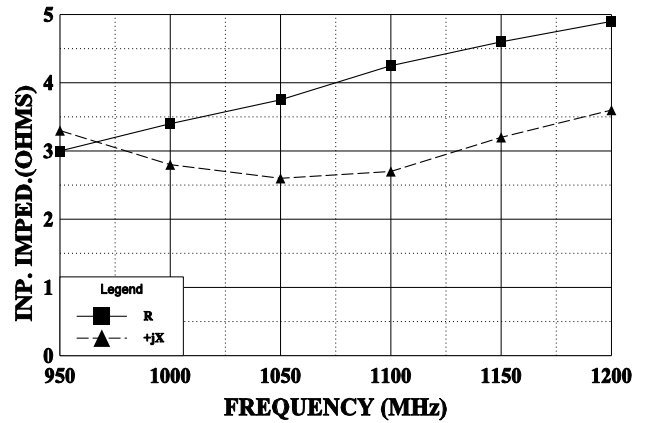
**SERIES COLLECTOR LOAD IMPEDANCE**

Vcc = 50 V, Pin = 60 W



**SERIES INPUT IMPEDANCE vs FREQUENCY**

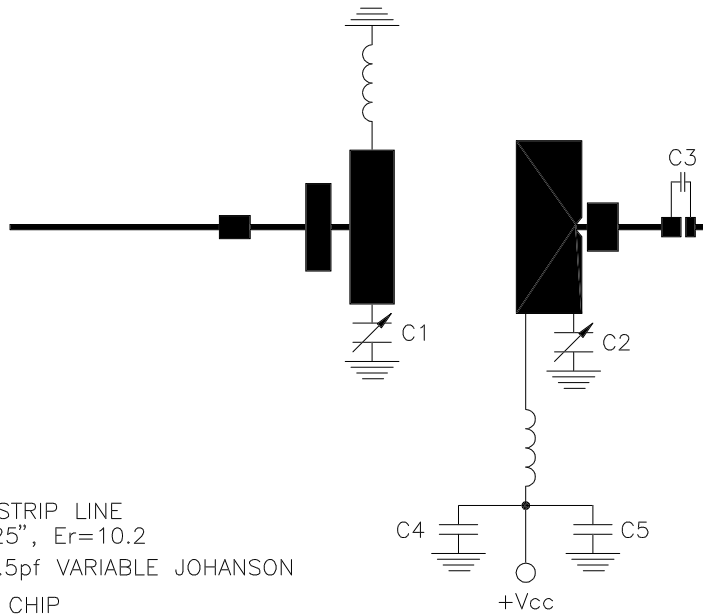
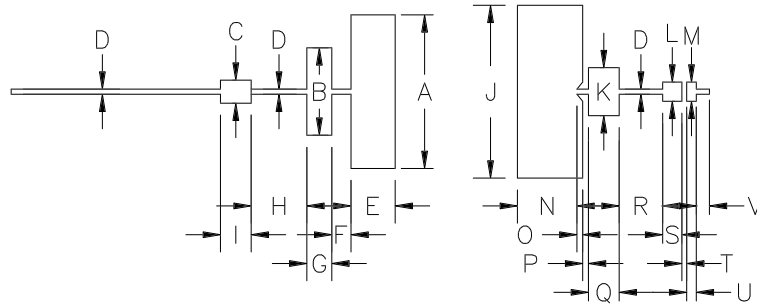
Vcc = 50 V, Pin = 60 W



REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	.800
B	.455
C	.120
D	.026
E	.230
F	.100
G	.130
H	.290
I	.160
J	.900
K	.250
L	.100
M	.100
N	.310
O	.030
P	.030
Q	.160
R	.227
S	.100
T	.025
U	.050
V	.068



- MICROSTRIP LINE  
t=0.025", Er=10.2
- C1,C2 = 0.3-3.5pf VARIABLE JOHANSON
- C3 = 100pf CHIP
- C4 = 0.1μfd
- C5 = 220μfd @ 65V