

TAN250A 250 Watts, 50 Volts, Pulsed Avionics 960 - 1215 MHz

CASE OUTLINE 55AW, Style 1

GENERAL DESCRIPTION

The TAN250A is a high powered 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.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation Device Dissipation @25°C	575	W
Maximum Voltage and Current Collector to Base Voltage (BV_{ces}) Emitter to Base Voltage (BV_{ebo}) Collector Current (I_c)	60 4.0 30	v
Maximum TemperaturesStorage Temperature-65 toOperating Junction Temperature	+200 +200	°C °C

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
Pout	Power Out	F = 960-1215 MHz	250			W
P _{in}	Power Input	Vcc = 50 Volts			60	W
Pg	Power Gain	$PW = 20 \ \mu sec$	6.2	7.0		dB
η_c	Collector Efficiency	DF = 5%		40		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			5:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BV _{ebo}	Emitter to Base Breakdown	Ie = 20 mA	4.0		V
BV _{ces}	Collector to Emitter Breakdown	Ic = 25 mA	60		V
h _{FE}	DC – Current Gain	Vce = 5V, Ic = 1 A	10		
θjc ²	Thermal Resistance			.3	°C/W

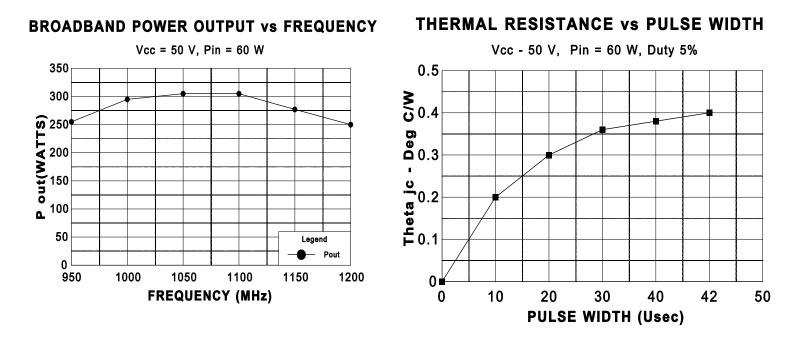
NOTE 1: At rated output power and pulse conditions 2. At rated pulse conditions

Revision A, August 2010

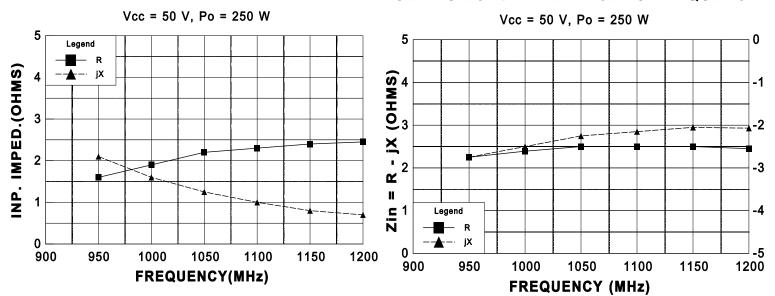
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TAN250A

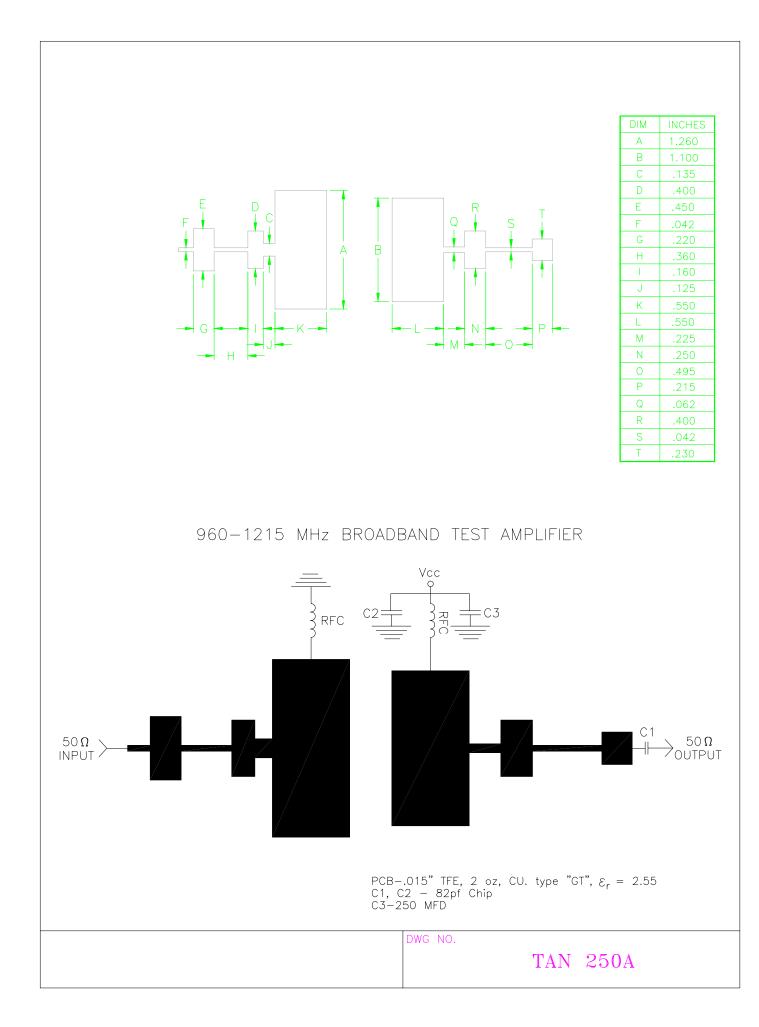


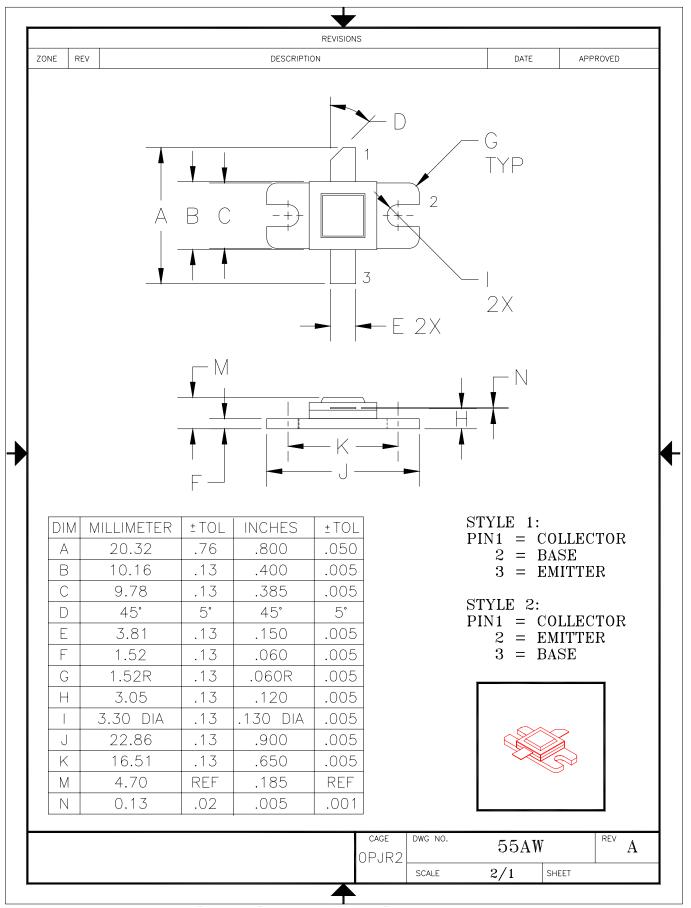
SERIES INPUT IMPEDANCE vs FREQUENCY SERIES LOAD IMPEDANCE vs FREQUENCY



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