

TAN150

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

GENERAL DESCRIPTION

The TAN150 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.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C² 583 Watts

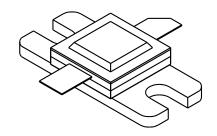
Maximum Voltage and Current

BVcesCollector to Base Voltage55 VoltsBVeboEmitter to Base Voltage3.5 VoltsIcCollector Current15 Amps

Maximum Temperatures

Storage Temperature $- 65 \text{ to} + 150^{\circ}\text{C}$ Operating Junction Temperature $+ 200^{\circ}\text{C}$

CASE OUTLINE 55AW, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout Pin Pg η _c VSWR	Power Out Power Input Power Gain Collector Efficiency Load Mismatch Tolerance	F = 960-1215 MHz $Vcc = 50 Volts$ $PW = 20 µsec$ $DF = 5%$ $F = 1090 MHz$	150 7.0	38	30 10:1	Watts Watts dB %

BVebo BVces h _{FE} θ jc ²	Emitter to Base Breakdown Collector to Emitter Breakdown DC - Current Gain Thermal Resistance	Ie = 10 mA Ic = 50 mA I c= 50 mA, Vce = 5 V	3.5 55 10	0.3	Volts Volts °C/W

Note 1: At rated output power and pulse conditions

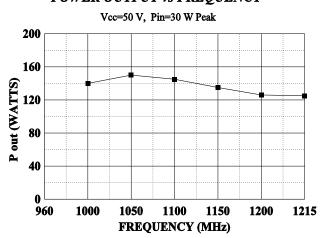
2: At rated pulse conditions

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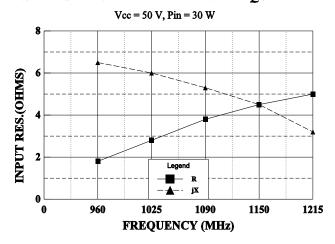
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POWER OUTPUT vs FREQUENCY



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY

