

JTDA 50

50 Watts, 36 Volts, Pulsed
Avionics 960 - 1215 MHz

GENERAL DESCRIPTION

The JTDA 50 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 220 Watts

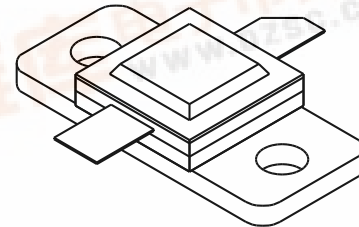
Maximum Voltage and Current

BVces Collector to Base Voltage 55 Volts
BVebo Emitter to Base Voltage 3.5 Volts
Ic Collector Current 7.0 Amps

Maximum Temperatures

Storage Temperature - 65 to + 200°C
Operating Junction Temperature + 200°C

CASE OUTLINE 55AT, STYLE 1



SEE NOTE BELOW

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 960-1215 MHz	50			Watts
Pin	Power Input	Vcc = 36 Volts			10	Watts
Pg	Power Gain	PW = 10 μsec	7.0			dB
ηc	Collector Efficiency	DF = 20%		40		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			10:1	

BVebo	Emitter to Base Breakdown	Ie = 25 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic = 25 mA	55			Volts
Cob	Capacitance Collector to Base	Vcb = 36V				
hFE	DC - Current Gain	Ic = 750 mA, Vce = 5 V	20		100	
θjc ²	Thermal Resistance				0.8	°C/W

Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

Case Outline Note: During 1995 GHz will be converting the 55AT style flange to the version using a slot in the mounting area, refer to 55AW.

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