

JTDB 25

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

GENERAL DESCRIPTION

The JTDB 25 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 97 Watts

Maximum Voltage and Current

BVces Collector to Base Voltage 55 Volts

BVebo Emitter to Base Voltage 3.5 Volts

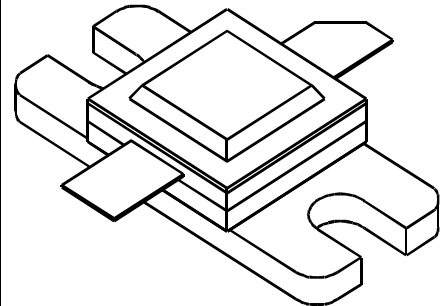
Ic Collector Current 5.0 Amps

Maximum Temperatures

Storage Temperature - 65 to + 200°C

Operating Junction Temperature + 200°C

CASE OUTLINE 55AW, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Out	F = 960-1215 MHz	25			Watts
P _{in}	Power Input	V _{cc} = 36 Volts			5.0	Watts
P _g	Power Gain	PW = 10 μsec	7.0	7.5		dB
η _c	Collector Efficiency	DF = 40%		40		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz			5:1	

BVebo	Emitter to Base Breakdown	I _e = 5 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	I _c = 10 mA	55			Volts
h _{FE}	DC - Current Gain	I _c = 500 mA, V _{ce} = 5 V	10			
θ _{jc} ²	Thermal Resistance				1.8	°C/W

Note 1: At rated output power and pulse conditions

2: At rated pulse conditions

Issue A, July 1997

GHz TECHNOLOGY INC. RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE. GHz RECOMMENDS THAT BEFORE THE PRODUCT(S) DESCRIBED HEREIN ARE WRITTEN INTO SPECIFICATIONS, OR USED IN CRITICAL APPLICATIONS, THAT THE PERFORMANCE CHARACTERISTICS BE VERIFIED BY CONTACTING THE FACTORY.

GHz Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120