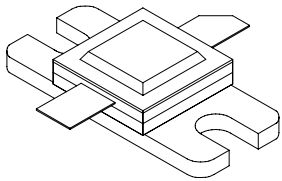




JTDB75

**75 Watts, 36 Volts, Pulsed
Avionics 960 - 1215 MHz**

<p>GENERAL DESCRIPTION</p> <p>The JTDB75 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.</p>	<p>CASE OUTLINE 55AW, Style 1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation Device Dissipation @25°C² 220 W</p> <p>Maximum Voltage and Current Collector to Base Voltage (BV_{ces}) 55 V Emitter to Base Voltage (BV_{ebo}) 3.5 V Collector Current (I_c) 8.0 A</p> <p>Maximum Temperatures Storage Temperature -65 to +200 °C Operating Junction Temperature +200 °C</p>	

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Out	F = 960-1215 MHz	75			W
P _{in}	Power Input	V _{cc} = 36 Volts			15	W
P _g	Power Gain	PW = 10 μsec, Note 1	7.0	8.2		dB
η _c	Collector Efficiency	DF = 40%, Note 1		40		%
VSWR ¹	Load Mismatch Tolerance	F = 1090 MHz			3:1	

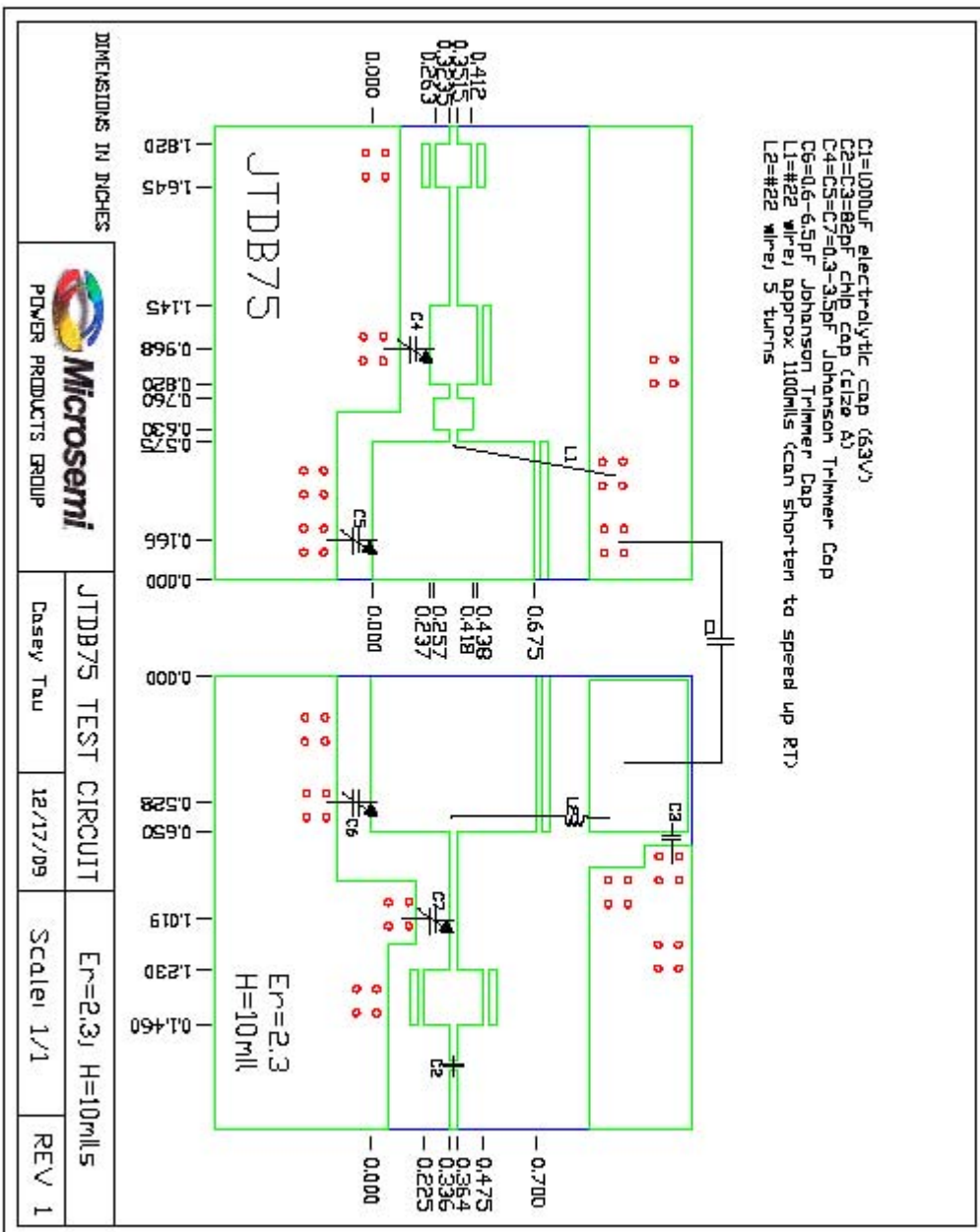
FUNCTIONAL CHARACTERISTICS @ 25°C

BV _{ebo}	Emitter to Base Breakdown	I _e = 30 mA	3.5			V
BV _{ces}	Collector to Emitter Breakdown	I _c = 30 mA	55			V
h _{FE}	DC – Current Gain	V _{ce} = 5V, I _c = 1A	20		100	
θ _{jc} ²	Thermal Resistance				0.8	°C/W

NOTE 1: At rated output power and pulse conditions

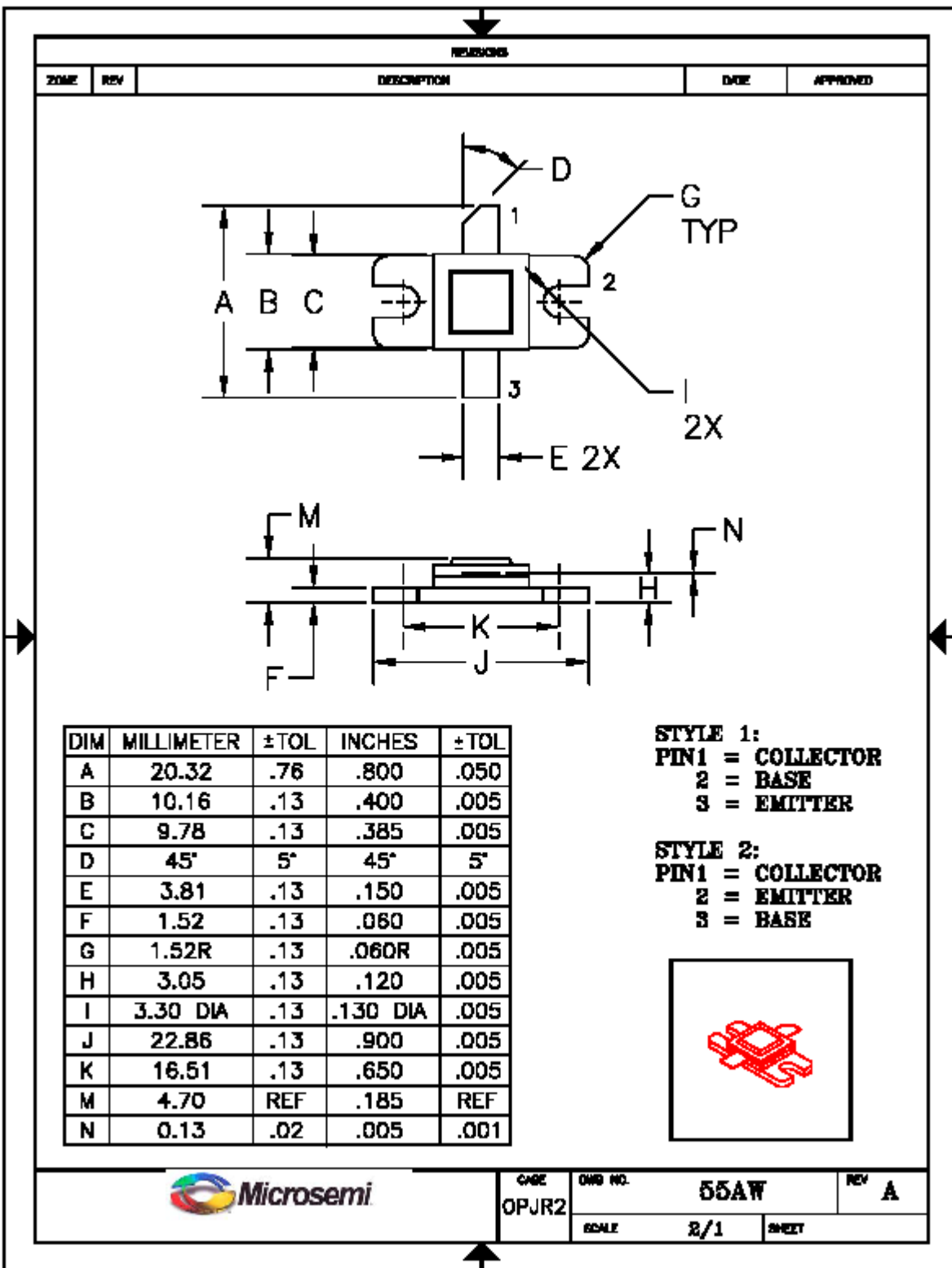
2. At rated pulse conditions

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