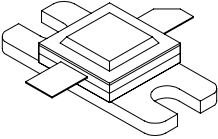




# JTDB25

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

<p><b>GENERAL DESCRIPTION</b></p> <p>The JTDB25 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><b>CASE OUTLINE</b> <b>55AW-1</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C<sup>1</sup> 97W</p> <p><b>Maximum Voltage and Current</b></p> <p>BV<sub>CES</sub> 55V</p> <p>BV<sub>EBO</sub> 3.5V</p> <p>I<sub>C</sub> 5.0A</p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature -65 to +200°C</p> <p>Operating Junction Temperature +200°C</p>	

**ELECTRICAL CHARACTERISTICS @ 25°C**

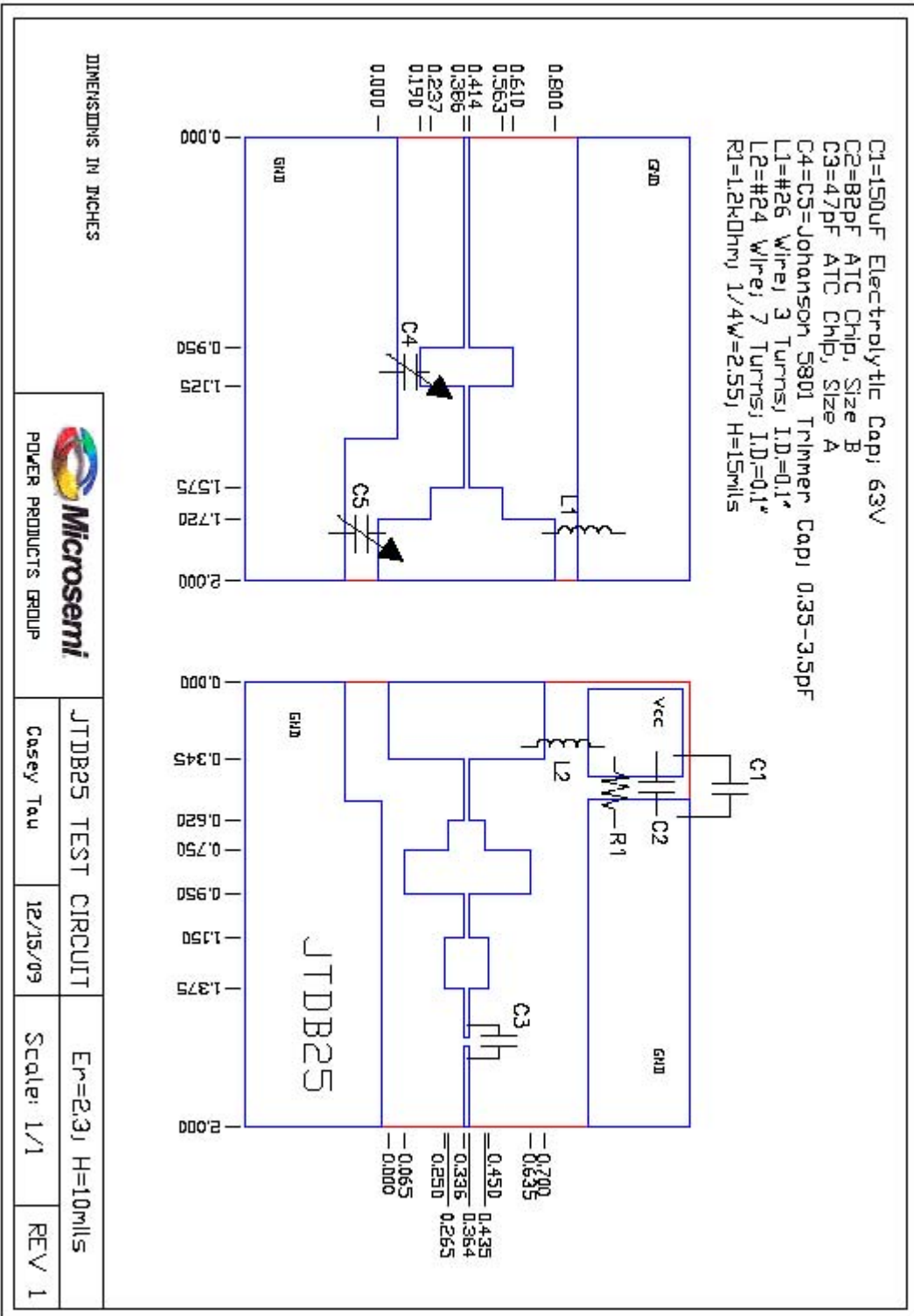
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
BV <sub>EBO</sub>	Emitter – Base Breakdown	I <sub>E</sub> = 5 mA	3.5			V
BV <sub>CES</sub>	Collector – Emitter Breakdown	I <sub>C</sub> = 10 mA	55			V
h <sub>FE</sub>	DC – Current Gain	I <sub>C</sub> = 500mA, V <sub>CE</sub> = 5V	20			
θ <sub>JC</sub> <sup>1</sup>	Thermal Resistance				1.8	°C/W

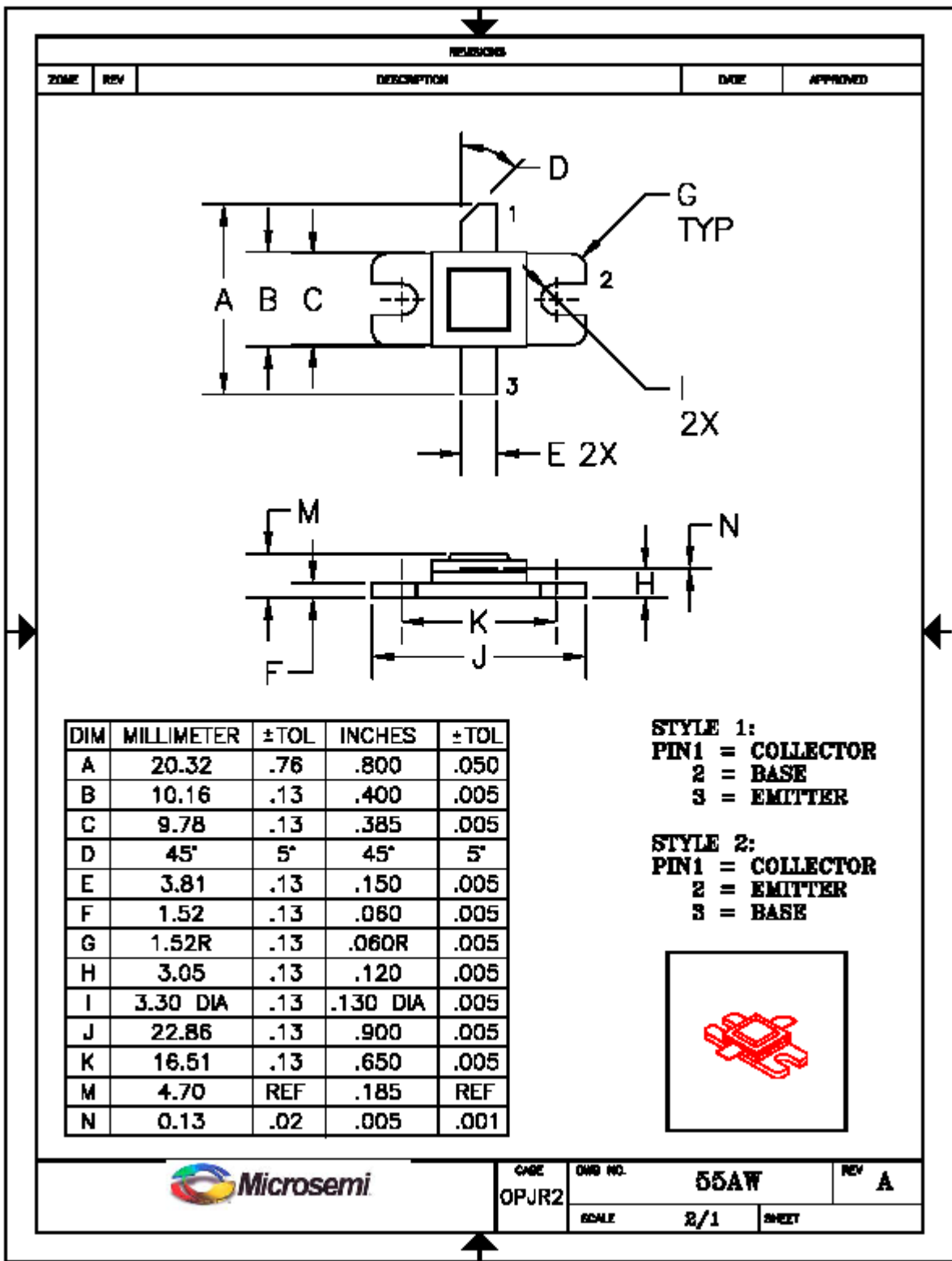
**FUNCTIONAL CHARACTERISTICS @ 25°C**

Pout	Power Output	F=960-1215 MHz	25			W
Pin	Power Input	V <sub>cc</sub> = 36V			5	W
Gain	Power Gain	Pulse width = 10µs	7.0	7.5		
RL	Return Loss	DF=40%	8			dB
VSWR <sup>2</sup>	Load Mismatch Tolerance	F = 1090 MHz			5:1	

NOTES: 1. At Rated Pulse Conditions  
2. At Rated Output Power

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