

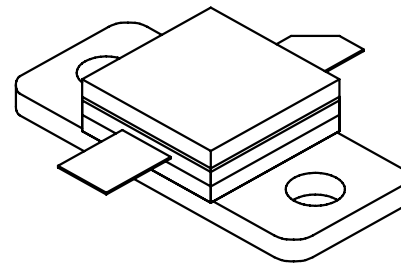
# DME 150

150 Watts, 50 Volts, Pulsed  
Avionics 1025 - 1150 MHz

## GENERAL DESCRIPTION

The DME 150 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 1025-1150 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.

## CASE OUTLINE 55AY, STYLE 1



## ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C <sup>2</sup>	290 Watts
<b>Maximum Voltage and Current</b>	
BVces Collector to Base Voltage	55 Volts
BVebo Emitter to Base Voltage	4.0 Volts
Ic Collector Current	15 Amps
<b>Maximum Temperatures</b>	
Storage Temperature	- 65 to + 150°C
Operating Junction Temperature	+ 150°C

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 1025-1150 MHz	150			Watts
Pin	Power Input	Vcc = 50 Volts			25	Watts
Pg	Power Gain	PW = 10 μsec	7.8	8.3		dB
ηc	Collector Efficiency	DF = 1%		40		%
VSWR	Load Mismatch Tolerance	F = 1025 MHz			20:1	

BVebo	Emitter to Base Breakdown	Ie = 15 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	Ic = 25 mA	55			Volts
hFE	DC - Current Gain	Ic = 250 mA, Vce = 5 V	20		100	
θjc <sup>2</sup>	Thermal Resistance				0.6	°C/W

Note 1: At rated output power and pulse conditions  
2: At rated pulse conditions

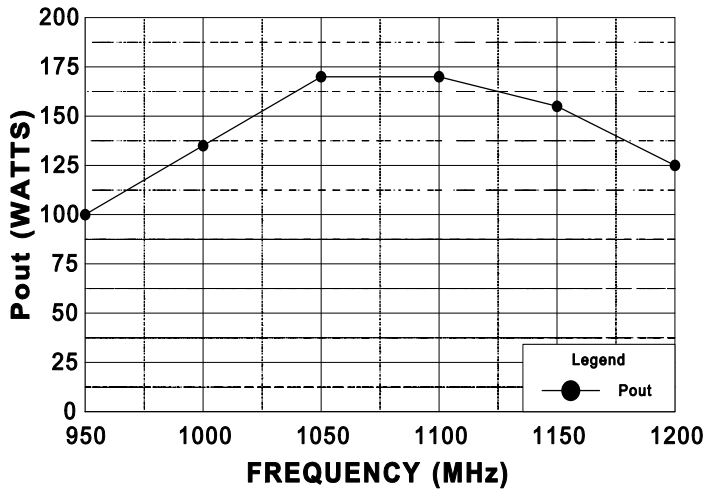
Rev A January 2009

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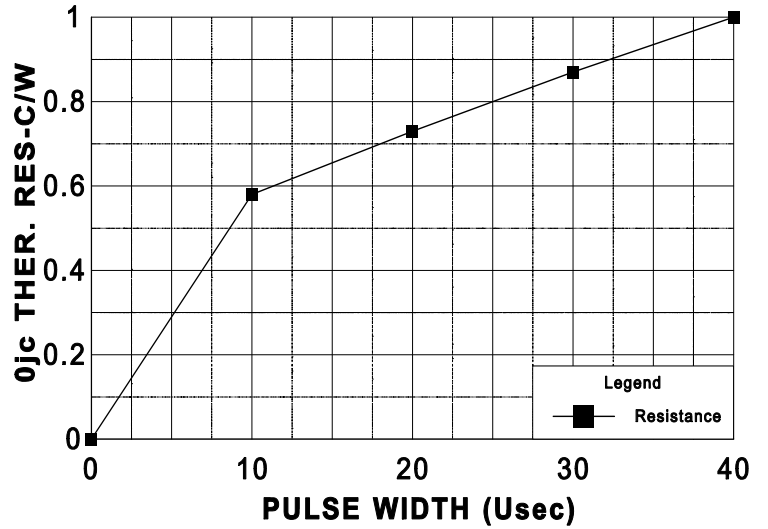
## POWER OUTPUT

Vcc = 50 V, Pin = 25 W



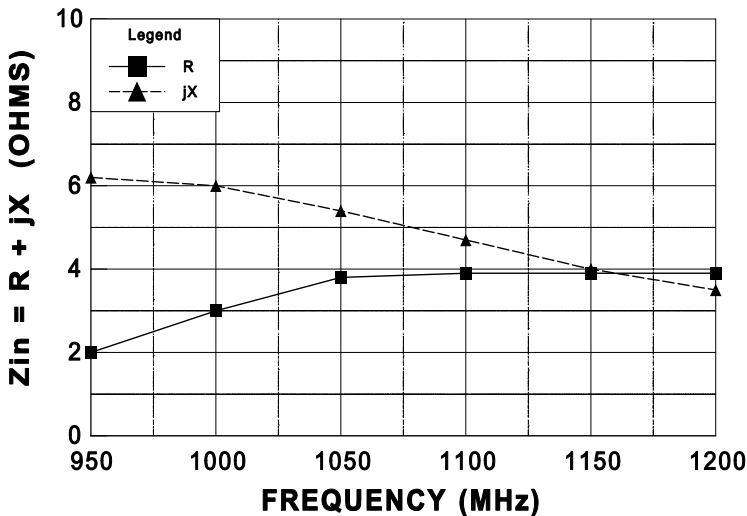
## THERMAL RESISTANCE vs PULSE WIDTH

Vcc=50V, DF=1%, Tf=30C



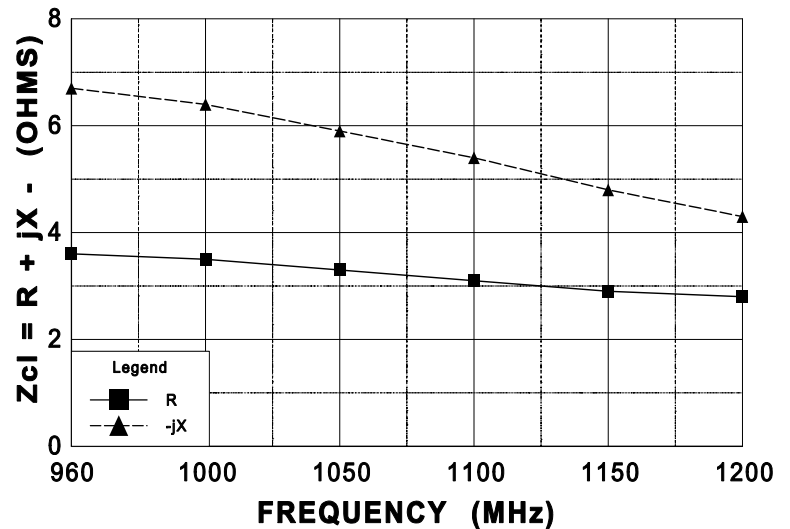
## SERIES INPUT IMPEDANCE vs FREQUENCY

Vcc = 50 V, Po = 150 W



## SERIES LOAD IMPEDANCE vs FREQUENCY

Vcc = 50 V, Po = 150 W



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