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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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DME375A

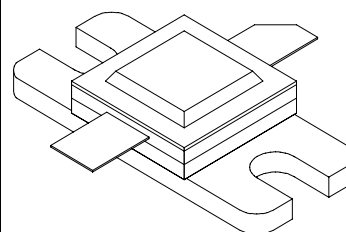
375 Watts, 50 Volts, Pulsed
Avionics 1025-1150 MHz

GENERAL DESCRIPTION

The DME375A 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 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

55AW Style 1



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation

Device Dissipation @25°C² 875 W

Maximum Voltage and Current

Collector to Base Voltage (BV_{ces}) 55 V

Emitter to Base Voltage (BV_{ebo}) 4.0 V

Collector Current (I_c) 30 A

Maximum Temperatures

Storage Temperature -65 to +200 °C

Operating Junction Temperature +200 °C

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Out	F = 1025 – 1150 MHz	375			W
P _{in}	Power Input	V _{cc} = 50 Volts			85	W
P _g	Power Gain	PW = 10 μsec	6.5			dB
η _c	Collector Efficiency	DF = 1%		40		%
VSWR ¹	Load Mismatch Tolerance	F = 1090 MHz			□:1	

FUNCTIONAL CHARACTERISTICS @ 25°C

BV _{ebo}	Emitter to Base Breakdown	I _e = 20 mA	4.0			V
BV _{ces}	Collector to Emitter Breakdown	I _c = 25 mA	55			V
h _{FE}	DC – Current Gain	V _{ce} = 5V, I _c = 300 mA	10			
θ _{jc} ²	Thermal Resistance				0.2	°C/W

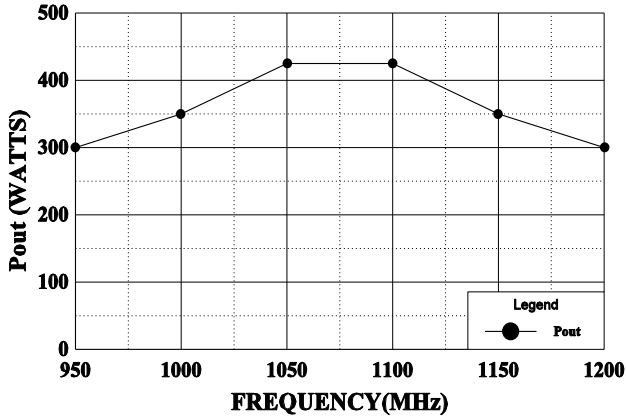
NOTE 1: At rated output power and pulse conditions

2. At rated pulse conditions

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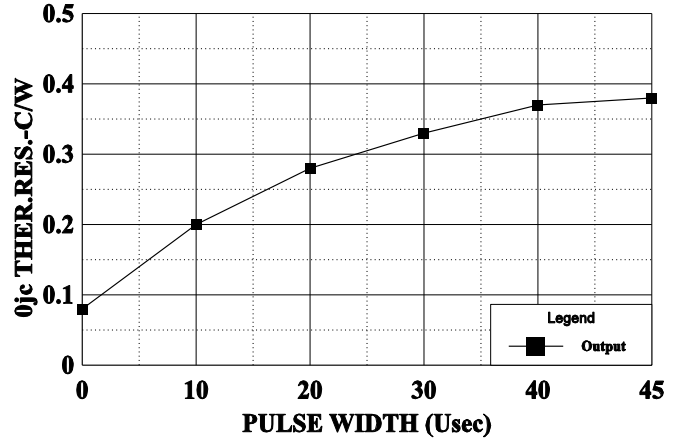
POWER OUTPUT

V_{cc} = 50 V, P_{in} = 85 W



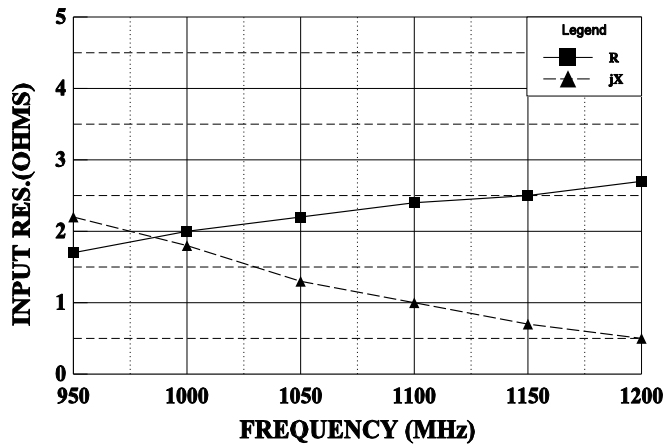
THERMAL RESISTANCE vs PULSE WIDTH

V_{cc} = 50 V, T_f = 30 C



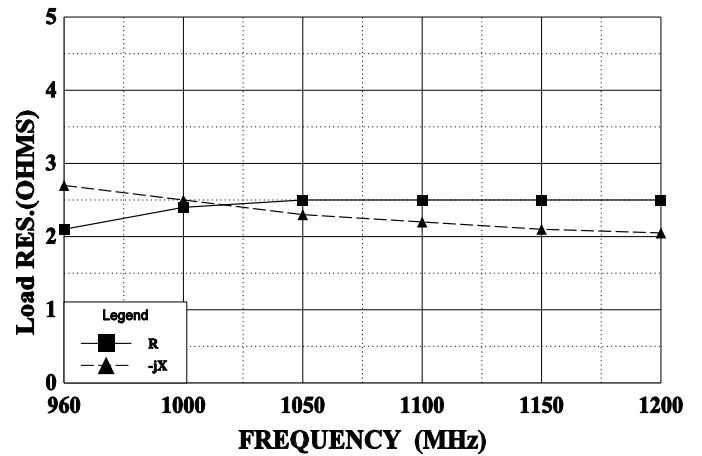
SERIES INPUT IMPEDANCE vs FREQUENCY

V_{cc} = 50 V, P_o = 375 W



SERIES LOAD IMPEDANCE vs FREQUENCY

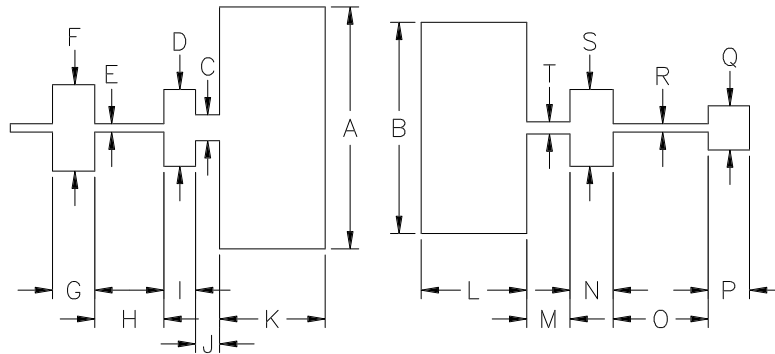
V_{cc} = 50 V, P_o = 375 W



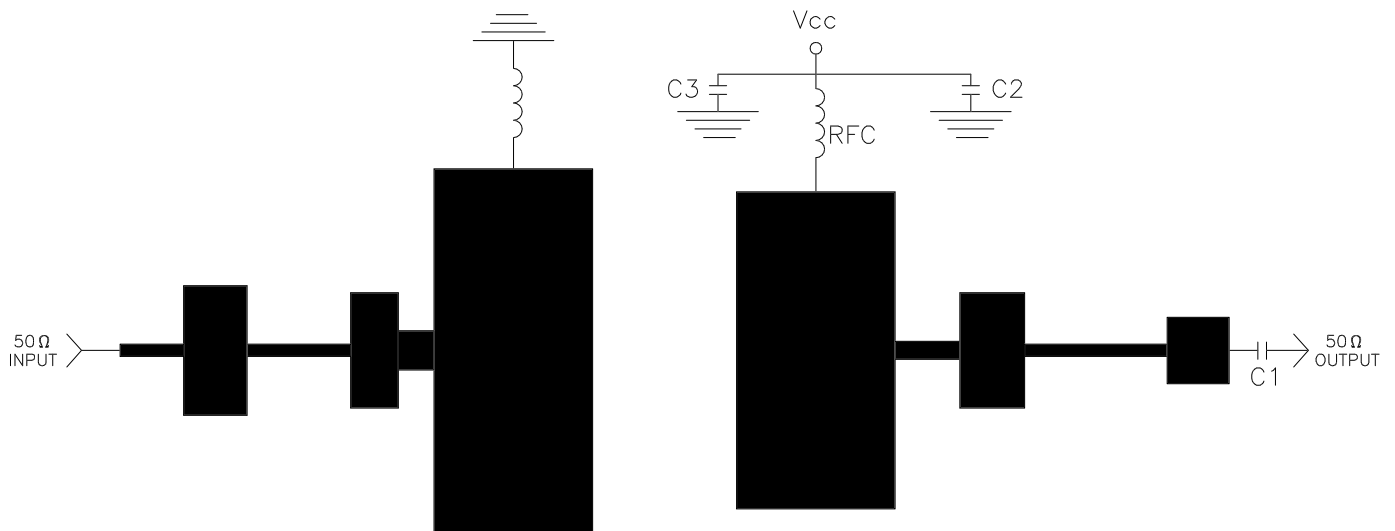
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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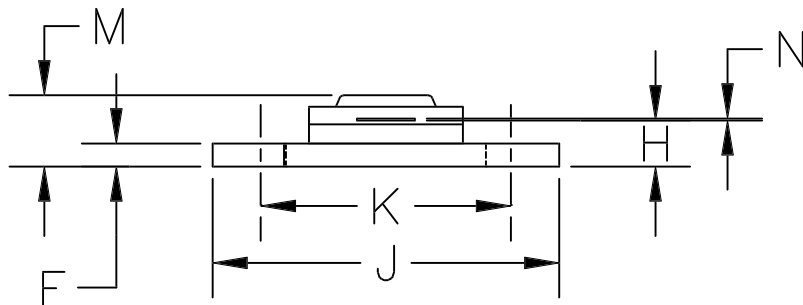
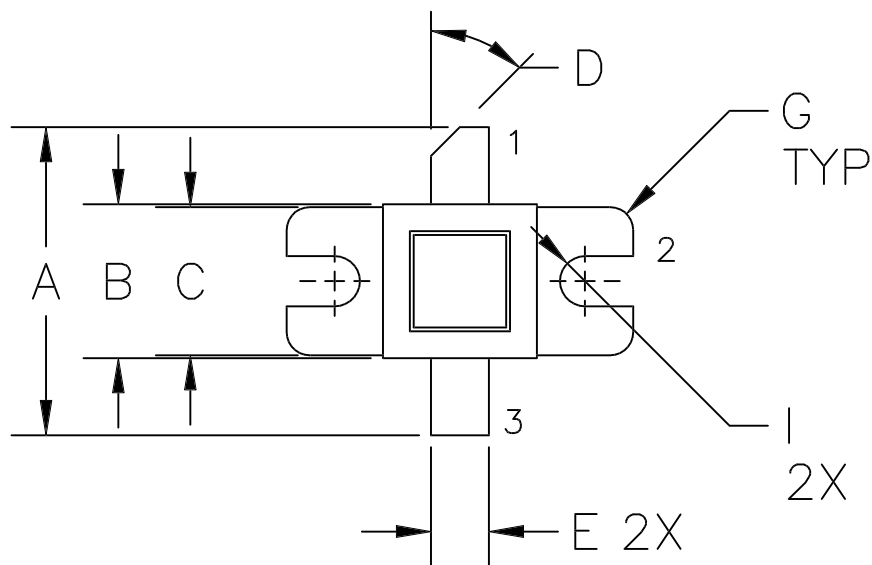
DIM	INCHES
A	1.260
B	1.100
C	.135
D	.400
E	.042
F	.450
G	.220
H	.360
I	.165
J	.125
K	.550
L	.550
M	.225
N	.225
O	.495
P	.215
Q	.230
R	.042
S	.400
T	.062



1025/1150 MHz TEST AMPLIFIER (FIG. 1)



PCB= .020" TFE, 2 oz. CU. Type "GT"
 C1, C2= 82pf Chip
 C3= 250 MFD



DIM	MILLIMETER	TOL	INCHES	TOL
A	20.32	.76	.800	.050
B	10.16	.13	.400	.005
C	9.78	.13	.385	.005
D	45°	5°	45°	5°
E	3.81	.13	.150	.005
F	1.52	.13	.060	.005
G	1.52R	.13	.060R	.005
H	3.05	.13	.120	.005
I	3.30 DIA	.13	.130 DIA	.005
J	22.86	.13	.900	.005
K	16.51	.13	.650	.005
M	4.70	REF	.185	REF
N	0.13	.02	.005	.001

STYLE 1:
PIN1 = COLLECTOR
2 = BASE
3 = EMITTER

STYLE 2:
PIN1 = COLLECTOR
2 = EMITTER
3 = BASE

