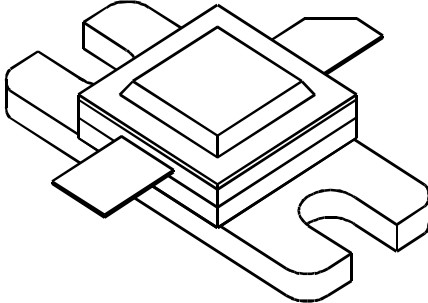


1618-35

35 Watt - 28 Volts, Class C
Microwave 1600 - 1800 MHz

<p>GENERAL DESCRIPTION</p> <p>The 1618-35 is a COMMON BASE transistor capable of providing 35 Watts of Class C, RF output power over the band 1600-1800 MHz. This transistor is designed for Microwave Broadband Class C amplifier applications. It includes Input and Output prematching and utilizes Gold metalization and diffused ballasting to provide high reliability and supreme ruggedness. The transistor uses a fully hermetic High Temperature Solder sealed package.</p>	<p>CASE OUTLINE 55AW, STYLE 1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 135 Watts</p> <p>Maximum Voltage and Current</p> <p>BVces Collector to Emitter Voltage 45 Volts BVebo Emitter to Base Voltage 3.5 Volts Ic Collector Current 12 A</p> <p>Maximum Temperatures</p> <p>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 = 1600-1800 MHz	35			Watt
P _{in}	Power Input	V _{cb} = 28 Volts			7	Watt
P _g	Power Gain	P _{in} = 7 Watts		7.0		dB
η _c	Collector Efficiency	As Above		40		%
VSWR ₁	Load Mismatch Tolerance	F = 1.1 GHz, P _{in} = 7 W			10:1	

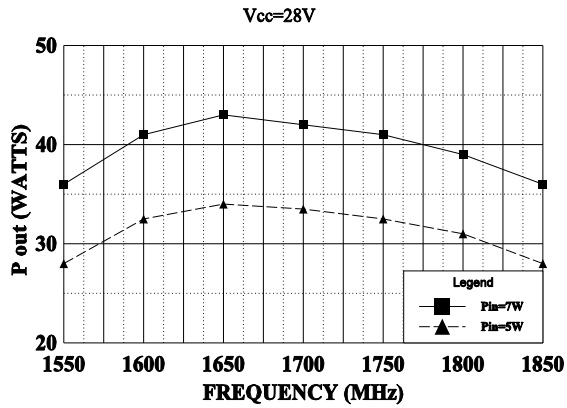
BVces	Collector to Emitter Breakdown	I _c = 20 mA	45			Volts
BVebo	Emitter to Base Breakdown	I _e = 15 mA	3.5			Volts
H _{FE}	Current Gain	V _{ce} = 5 V, I _c = 1 A	10		100	
Cob	Output Capacitance	F = 1 MHz, V _{cb} = 28V				pF
θ _{jc}	Thermal Resistance				1.3	°C/W

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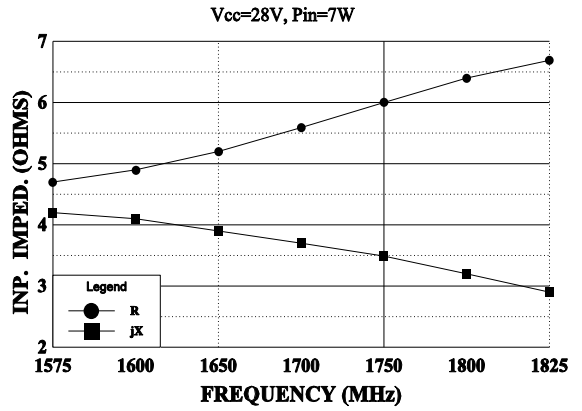
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GHZ Technology Inc. 3000 Oakmead Village Drive, Santa Clara, CA 95051-0808 Tel. 408 / 986-8031 Fax 408 / 986-8120

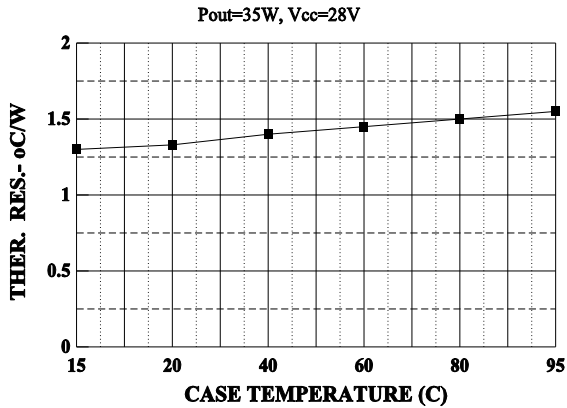
POWER OUTPUT vs FREQUENCY



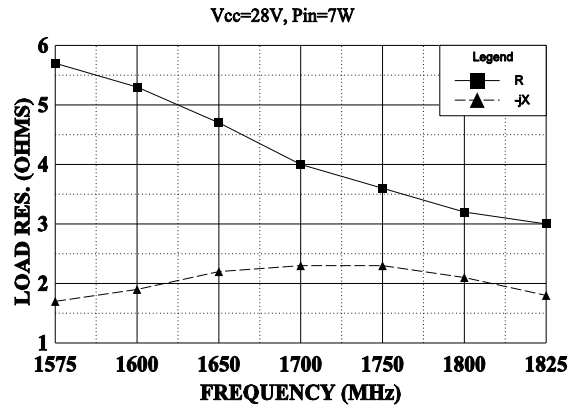
SERIES INPUT IMPEDANCE vs FREQUENCY



THERMAL RESISTANCE vs CASE TEMPERATURE



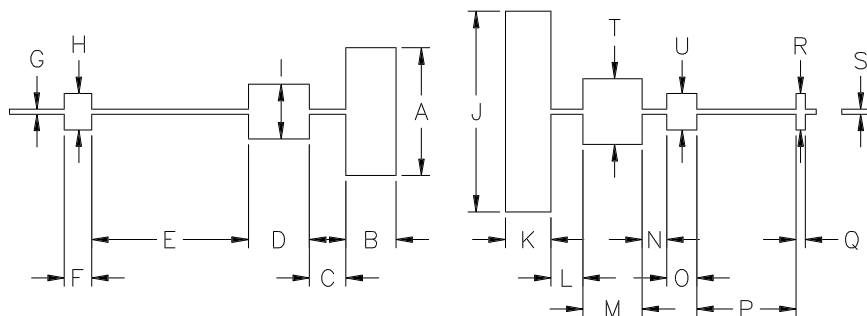
SERIES LOAD IMPEDANCE vs FREQUENCY



REVISIONS

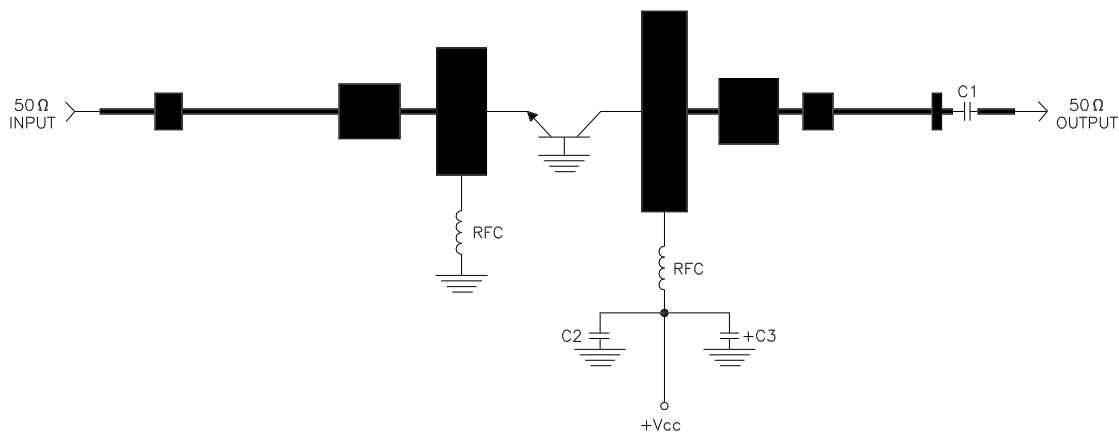
ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	.700
B	.275
C	.200
D	.335
E	.860
F	.150
G	.028
H	.200
I	.300
J	1.100
K	.250
L	.175
M	.325
N	.135
O	.165
P	.545
Q	.050
R	.200
S	.028
T	.360
U	.200



1618-35 TEST AMPLIFIER

f = 1.6-1.8 GHz



— = Microstrip on 0.010" Duroid, Er=2.3
 C1,C2 = 82 pf CHIP CAP
 C3 = 1μfd @ 35 Volts



CAGE OPJR2	DWG NO. 1618-35	REV A
	SCALE 1/1	SHEET