

2324-12L

12 Watts - 20 Volts, Class C
Microwave 2300 - 2400 MHz

GENERAL DESCRIPTION

The 2324-12L is a COMMON BASE transistor capable of providing 12 Watts of Class C, RF output power over the band 2300-2400 MHz. This transistor is specifically designed for Microwave Broadband Class C amplifier applications. It includes input and output pre matching 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.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 44 Watts

Maximum Voltage and Current

BVces Collector to Emitter Voltage 40 Volts

BVebo Emitter to Base Voltage 3.5 Volts

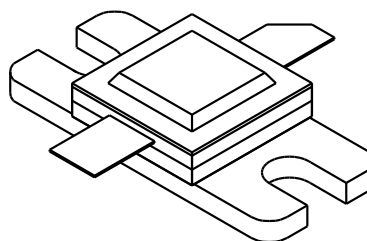
Ic Collector Current 3.0 Amps

Maximum Temperatures

Storage Temperature - 65 to + 200°C

Operating Junction Temperature + 200°C

CASE OUTLINE 55AW, STYLE 1



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Out	F = 2.3 - 2.4 GHz	12			Watts
P_{in}	Power Input	V _{cc} = 20 Volts			2.5	Watts
P_g	Power Gain	P _o = 12 Watts	6.8			dB
η_c	Efficiency	As Above		40		%
VSWR	Load Mismatch Tolerance	F=2.3 GHz, P _{in} =2.5W			10:1	

BVebo	Emitter to Base Breakdown	I _e = 10 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	I _c = 50mA	45			Volts
H_{fe}	DC Current Gain	V _{ce} =5V, I _c =1A	10			
C_{ob}	Output Capacitance*	F=1 MHz, V _{cb} =24V				
θ_{jc}	Thermal Resistance				4.0	°C/W

*Not measureable due to internal prematch network

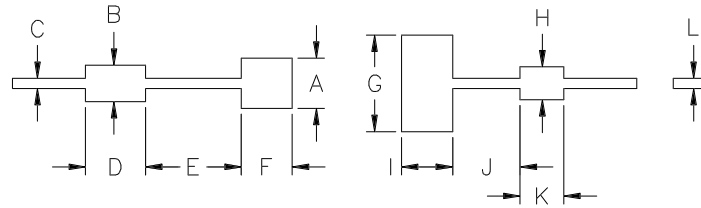
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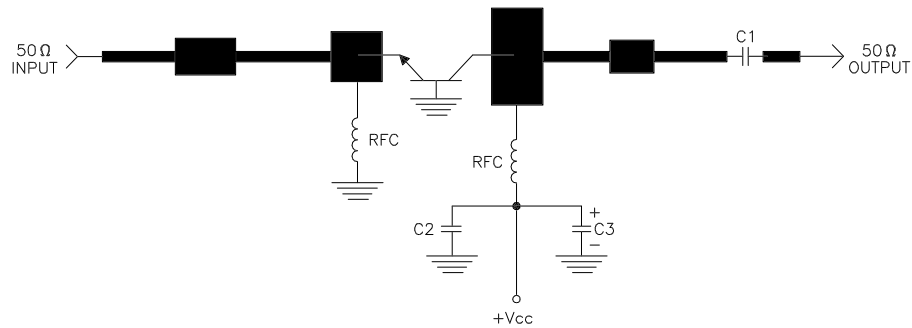
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	.275
B	.200
C	.058
D	.330
E	.525
F	.280
G	.530
H	.180
I	.280
J	.370
K	.240
L	.056

2324-12L TEST CIRCUIT



MATERIAL: .020" THICK TFE, $\epsilon_r = 2.55$
 C1, C2 = 62pF CHIP ATC "A"
 C3 = 10 MFD @ 35 V
 RFC = 4 turns #22 wire 1/16" I.D.



CAGE OPJR2	DWG NO. 2324-12L	REV A
SCALE 1/1	SHEET	