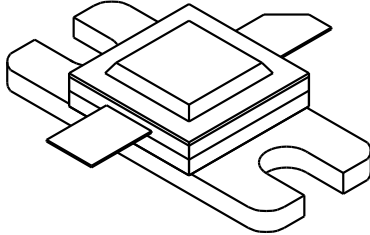


# 2324-12L

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

<p><b>GENERAL DESCRIPTION</b></p> <p>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.</p>	<p><b>CASE OUTLINE</b> <b>55AW, STYLE 1</b></p>																
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Maximum Power Dissipation @ 25°C</td> <td style="text-align: right;">44 Watts</td> </tr> <tr> <td colspan="2"><b>Maximum Voltage and Current</b></td> </tr> <tr> <td>BVces Collector to Emitter Voltage</td> <td style="text-align: right;">40 Volts</td> </tr> <tr> <td>BVebo Emitter to Base Voltage</td> <td style="text-align: right;">3.5 Volts</td> </tr> <tr> <td>Ic Collector Current</td> <td style="text-align: right;">3.0 Amps</td> </tr> <tr> <td colspan="2"><b>Maximum Temperatures</b></td> </tr> <tr> <td>Storage Temperature</td> <td style="text-align: right;">- 65 to + 200°C</td> </tr> <tr> <td>Operating Junction Temperature</td> <td style="text-align: right;">+ 200°C</td> </tr> </table>	Maximum Power Dissipation @ 25°C	44 Watts	<b>Maximum Voltage and Current</b>		BVces Collector to Emitter Voltage	40 Volts	BVebo Emitter to Base Voltage	3.5 Volts	Ic Collector Current	3.0 Amps	<b>Maximum Temperatures</b>		Storage Temperature	- 65 to + 200°C	Operating Junction Temperature	+ 200°C	
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**ELECTRICAL CHARACTERISTICS @ 25 °C**

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Out	F = 2.3 - 2.4 GHz	12			Watts
<b>Pin</b>	Power Input	Vcc = 20 Volts			2.5	Watts
<b>Pg</b>	Power Gain	Po = 12 Watts	6.8			dB
<b>ηc</b>	Efficiency	As Above		40		%
<b>VSWR</b>	Load Mismatch Tolerance	F=2.3 GHz, Pin =2.5W			10:1	

<b>BVebo</b>	Emitter to Base Breakdown	Ie= 10 mA	3.5			Volts
<b>BVces</b>	Collector to Emitter Breakdown	Ic = 50mA	45			Volts
<b>Hfe</b>	DC Current Gain	Vce=5V, Ic=1A	10			
<b>Cob</b>	Output Capacitance*	F=1 MHz, Vcb=24V				
<b>θjc</b>	Thermal Resistance				4.0	°C/W

\*Not measureable due to internal prematch network

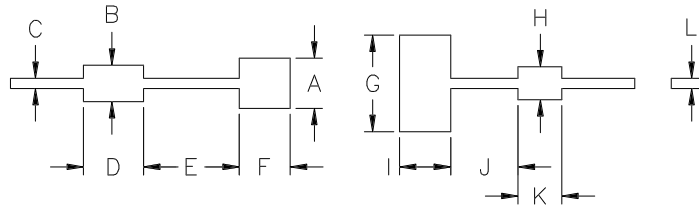
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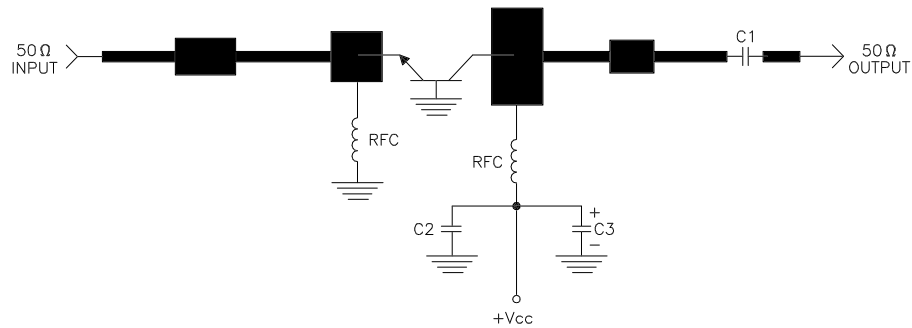
REVISIONS

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	