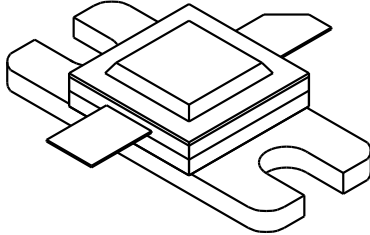


2324-12L

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

<p>GENERAL DESCRIPTION</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>CASE OUTLINE 55AW, STYLE 1</p>																
<p>ABSOLUTE MAXIMUM RATINGS</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">Maximum Voltage and Current</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">Maximum Temperatures</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	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	
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ELECTRICAL CHARACTERISTICS @ 25 °C

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

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

*Not measureable due to internal prematch network

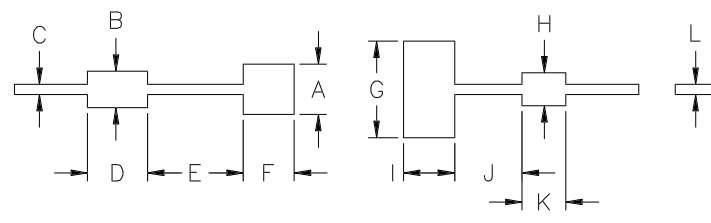
Issue August 1996

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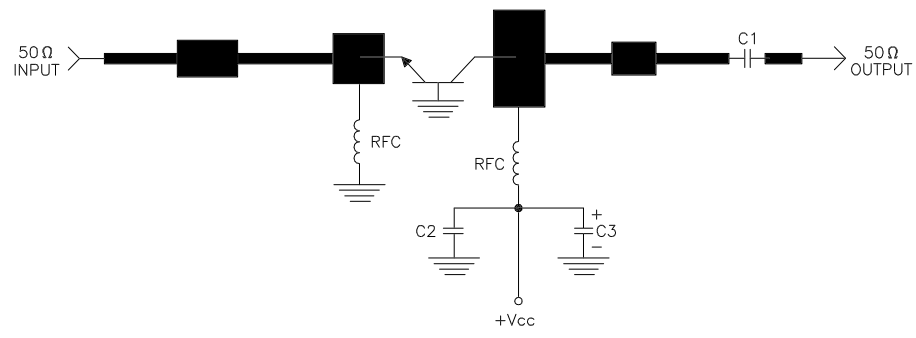
REVISIONS

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, Er = 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	