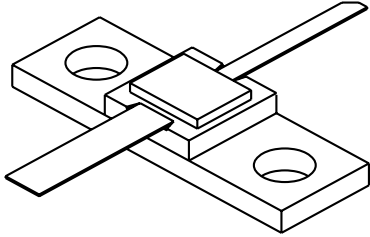


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# 1719-2

2 Watts, 22 Volts, Class C  
Microwave 1700 - 1900 MHz

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<p><b>GENERAL DESCRIPTION</b></p> <p>The 1719-2 is a COMMON BASE transistor capable of providing 2 Watts, Class C output power over the band 1750-1850 MHz. The transistor includes input prematching for full Broadband capability. Gold metalization and diffused ballasting are used to provide high reliability and supreme ruggedness. The transistor uses a fully hermetic High Temperature Solder Sealed package.</p>	<p style="text-align: center;"><b>CASE OUTLINE</b> <b>55LV, STYLE 1</b></p> 													
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C <span style="float: right;">11.6 Watts</span></p> <p><b>Maximum Voltage and Current</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">BVces</td> <td style="width: 45%;">Collector to Emitter Voltage</td> <td style="width: 40%; text-align: right;">45 Volts</td> </tr> <tr> <td>BVebo</td> <td>Emitter to Base Voltage</td> <td style="text-align: right;">3.5 Volts</td> </tr> <tr> <td>Ic</td> <td>Collector Current</td> <td style="text-align: right;">0.5 Amps</td> </tr> </table> <p><b>Maximum Temperatures</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 45%;">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>	BVces	Collector to Emitter Voltage	45 Volts	BVebo	Emitter to Base Voltage	3.5 Volts	Ic	Collector Current	0.5 Amps	Storage Temperature	- 65 to + 200°C	Operating Junction Temperature	+ 200°C	
BVces	Collector to Emitter Voltage	45 Volts												
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Storage Temperature	- 65 to + 200°C													
Operating Junction Temperature	+ 200°C													

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Out	F = 1750 -1850 MHz	2.0			Watts
<b>Pin</b>	Power Input	Vcc = 22 Volts			.355	Watts
<b>Pg</b>	Power Gain		7.0			dB
$\eta_c$	Efficiency			40		%
<b>VSWR<sub>1</sub></b>	Load Mismatch Tolerance	Pout = 8.0 Watts			10:1	

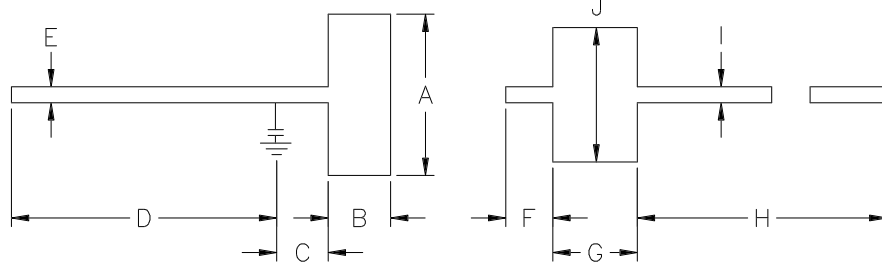
<b>BVces</b>	Collector to Emitter Breakdown	Ic = 10 mA	45			Volts
<b>BVebo</b>	Emitter to Base Breakdown	Ie = 5 mA	3.5			Volts
<b>Hfe</b>	Current Gain	Vce = 5V, Ic = 200 mA	20		120	
<b>Cob</b>	Output Capacitance	Vcb = 22V, F = 1 MHz		5.5		pF
$\theta_{jc}$	Thermal Resistance	Tc = 25°C			15	°C/W

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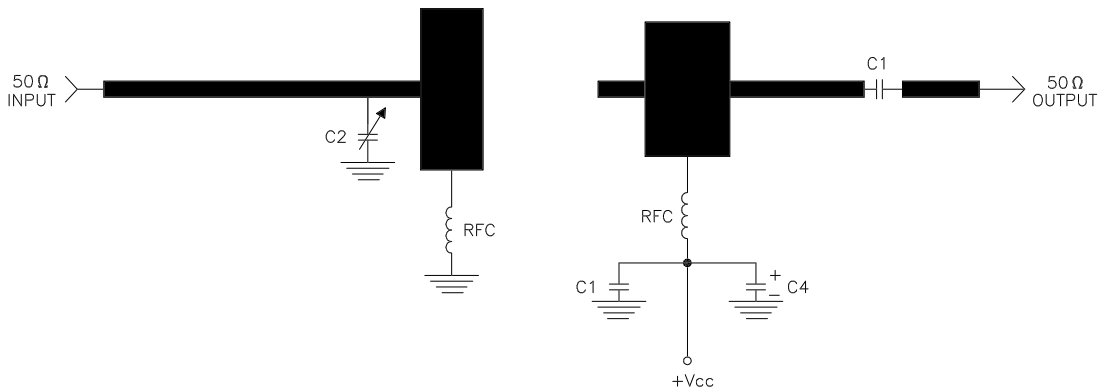
REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED
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DIM	INCHES
A	.840
B	.325
C	.275
D	1.375
E	.083
F	.245
G	.440
H	1.300
I	.083
J	.700

1719-2 TEST CIRCUIT



- = Microstrip on 0.020" TFE, Er=2.55
- C1 = 68pF ATC CASE-B
- C2 = 0.3-3.5pF JOHANSON VAR.
- C3 = 47μfd 50V