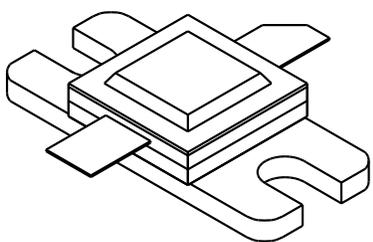


1720 - 20

20 Watt - 28 Volts, Class C
Microwave 1700 - 2000 MHz

<p>GENERAL DESCRIPTION</p> <p>The 1720-20 is a COMMON BASE transistor capable of providing 20 Watts of Class C, RF output power over the band 1700-2000 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, STYLE1</p> 													
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 67 Watts</p> <p>Maximum Voltage and Current</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">BVces</td> <td style="width: 40%;">Collector to Emitter Voltage</td> <td style="width: 30%; text-align: right;">50 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;">6.0 A</td> </tr> </table> <p>Maximum Temperatures</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 40%;">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	50 Volts	BVebo	Emitter to Base Voltage	3.5 Volts	Ic	Collector Current	6.0 A	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 = 2.0 GHz	20			Watt
Pin	Power Input	Vcb = 28 Volts			5.0	Watt
Pg	Power Gain	Pin = 5.0 Watts	6.0	6.5		dB
η_c	Collector Efficiency	As Above		32		%
VSWR₁	Load Mismatch Tolerance	F = 2.0 GHz, Pin = 5.0			10:1	

BVces	Collector to Emitter Breakdown	Ic = 10 mA	50			Volts
BVcbo	Collector to Base Breakdown	Ic = 10 mA				Volts
BVebo	Emitter to Base Breakdown	Ie = 1.0 mA	3.5			Volts
Icbo	Collector to Base Current	Vcb = 28 Volts			4.0	μA
h_{FE}	Current Gain	Vce = 5 V, Ic = 1.2 A	10			
Cob	Output Capacitance	F = 1 MHz, Vcb = 28 V			2.6	pF
θ_{jc}	Thermal Resistance					°C/W

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