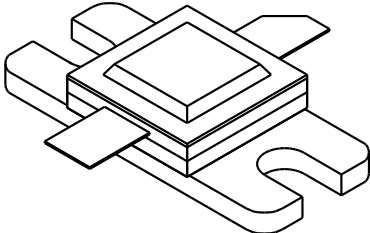


1819-35

35 Watt - 28 Volts, Class C
Microwave 1750 - 1850 MHz

<p>GENERAL DESCRIPTION</p> <p>The 1819-35 is a COMMON BASE transistor capable of providing 35 Watts of Class C, RF output power over the band 1750-1850 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, STYLE 1</p> 												
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Maximum Power Dissipation @ 25°C 135 Watts</p> <p>Maximum Voltage and Current</p> <table border="0" style="width: 100%;"> <tr> <td>BVces</td> <td>Collector to Emitter Voltage</td> <td style="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;">12 A</td> </tr> </table> <p>Maximum Temperatures</p> <table border="0" style="width: 100%;"> <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>		BVces	Collector to Emitter Voltage	50 Volts	BVebo	Emitter to Base Voltage	3.5 Volts	Ic	Collector Current	12 A	Storage Temperature	- 65 to + 200°C	Operating Junction Temperature
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BVebo	Emitter to Base Voltage	3.5 Volts											
Ic	Collector Current	12 A											
Storage Temperature	- 65 to + 200°C												
Operating Junction Temperature	+ 200°C												

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 1750-1850 MHz	35			Watt
Pin	Power Input	Vcb = 28 Volts			7	Watt
Pg	Power Gain	Pin = 7 Watts		7.0		dB
η_c	Collector Efficiency	As Above		40		%
VSWR₁	Load Mismatch Tolerance	F = 1850MHz, Pin = 7 W			10:1	

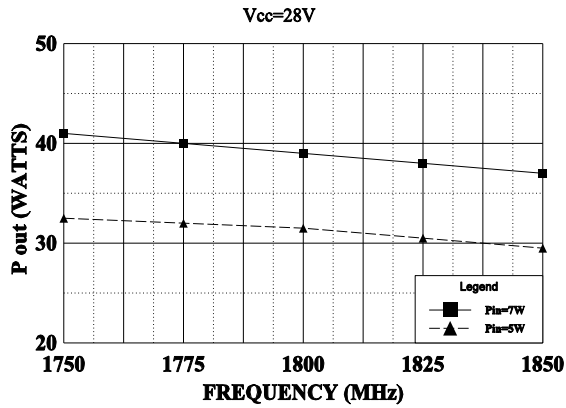
BVces	Collector to Emitter Breakdown	Ic = 20 mA	50			Volts
BVebo	Emitter to Base Breakdown	Ie = 15 mA	3.5			Volts
H_{FE}	Current Gain	Vce = 5 V, Ic = 1 A	10		100	
Cob	Output Capacitance	F = 1 MHz, Vcb = 28V				pF
θ_{jc}	Thermal Resistance				1.3	°C/W

72034

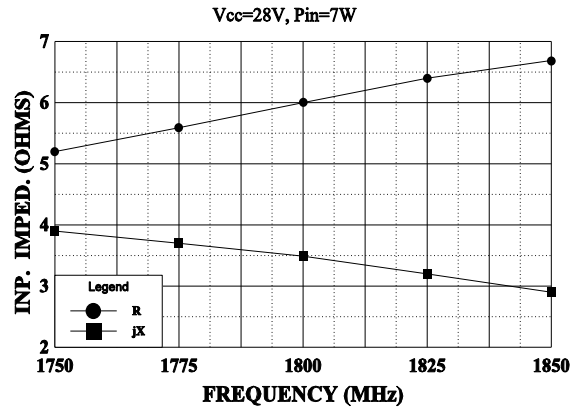
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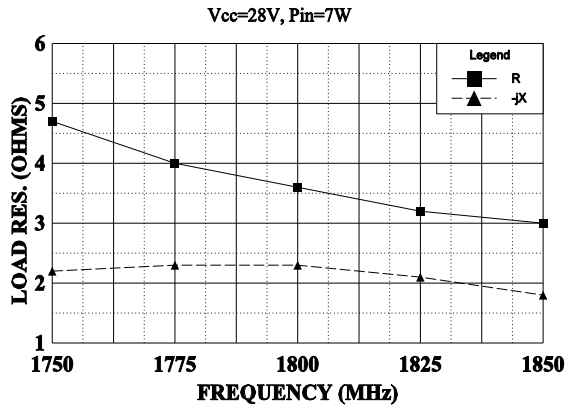
POWER OUTPUT vs FREQUENCY



SERIES INPUT IMPEDANCE vs FREQUENCY



SERIES LOAD IMPEDANCE vs FREQUENCY



THERMAL RESISTANCE vs CASE TEMPERATURE

