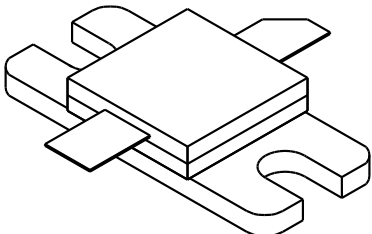


# 1719-35

35 Watt - 28 Volts, Class C  
Microwave 1725 - 1850 MHz

## Preliminary Issue

<p><b>GENERAL DESCRIPTION</b></p> <p>The 1719-35 is a COMMON BASE transistor capable of providing 35 Watts of Class C, RF output power over the band 1725 - 1850 MHz. This transistor is designed for Microwave Broadband Class C, HIGH EFFICIENCY 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 Low Inductance Flange Mount, Ceramic sealed package.</p>	<p><b>CASE OUTLINE</b> <b>55AR, STYLE 1</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C 97 Watts</p> <p><b>Maximum Voltage and Current</b></p> <p>BVces Collector to Emitter Voltage 50 Volts BVebo Emitter to Base Voltage 3.5 Volts Ic Collector Current 12 A</p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature - 65 to + 150°C Operating Junction Temperature + 200°C</p>	

## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 1725 - 1850 MHz	35			Watt
Pin	Power Input	Vcb = 28 Volts			6.23	Watt
Pg	Power Gain	Pin = 6.23 Watts	7.5	8.0		dB
$\eta_c$	Collector Efficiency	As Above	45	50		%
VSWR <sub>1</sub>	Load Mismatch Tolerance	F = 1850MHz, Pin = 6.23W			4.5:1	

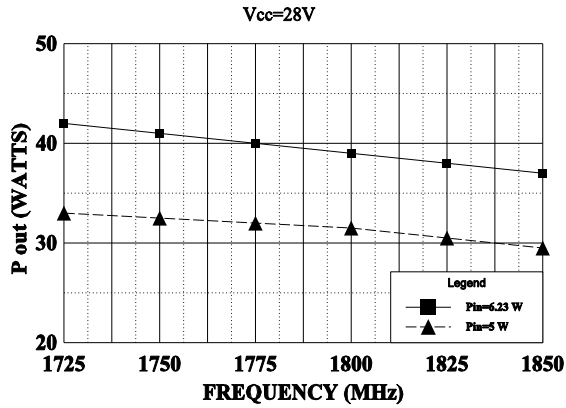
BVces	Collector to Emitter Breakdown	Ic = 20 mA	50			Volts
BVebo	Emitter to Base Breakdown	Ie = 15 mA	3.5			Volts
H <sub>FE</sub>	Current Gain	Vce = 5 V, Ic = 1 A	10		100	
Cob	Output Capacitance	F = 1 MHz, Vcb = 28V				pF
$\theta_{jc}$	Thermal Resistance				1.8	°C/W

72045

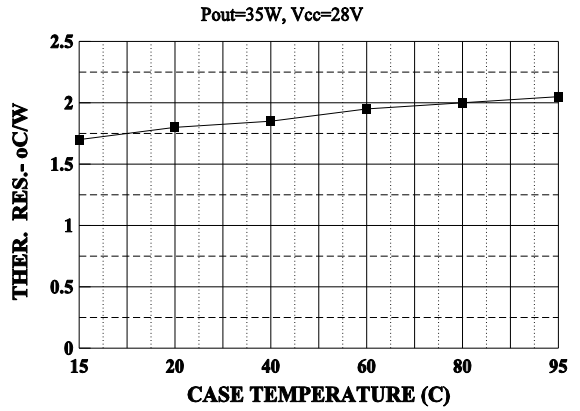
Initial Issue April 1996

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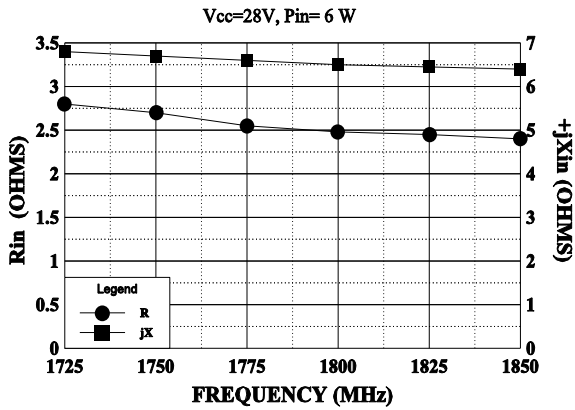
**POWER OUTPUT vs FREQUENCY**



**THERMAL RESISTANCE vs CASE TEMPERATURE**



**SERIES INPUT IMPEDANCE vs FREQUENCY**



**SERIES LOAD IMPEDANCE vs FREQUENCY**

