

B25-28 (2N6199)

25 WATTS - 28 VOLTS
100-200 MHz

GENERAL DESCRIPTION

The B25-28 is specifically designed for VHF broadband linear power amplifier applications in the 100-200 MHz range. The device is capable of operating in Class A, AB or C amplifiers and provides the maximum power output/power gain combination.

VHF COMMUNICATIONS

ABSOLUTE MAXIMUM RATINGS

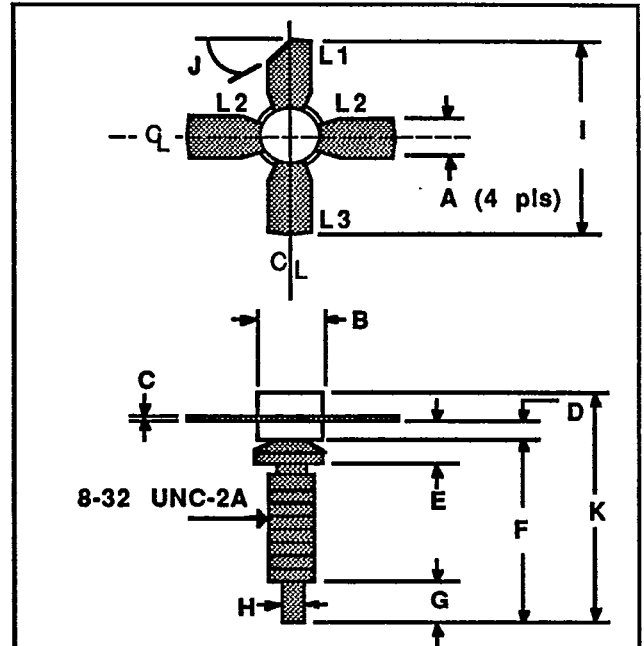
Maximum Power Dissipation @ 25°C Case Temperature 50 W

Maximum Voltage and Current

BVces Collector to Emitter Voltage 60 V
 BVebo Emitter to Base Voltage 4.0 V
 Ic Collector Current 5.0 A

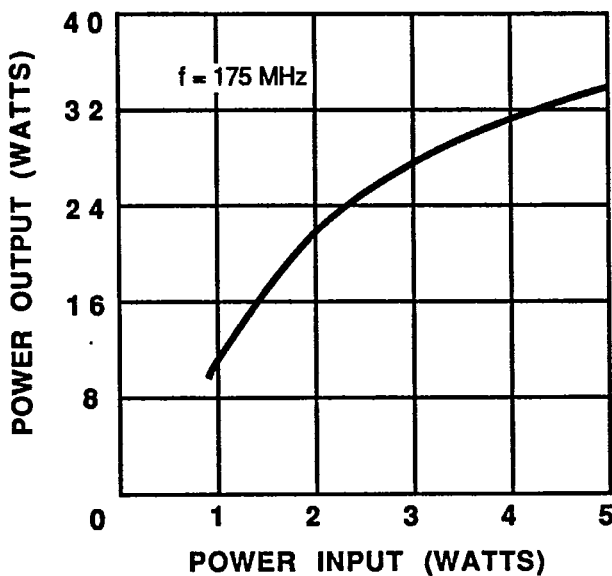
Maximum Temperatures

Storage Temperature -65 to +150 °C
 Operating Junction Temperature +200 °C



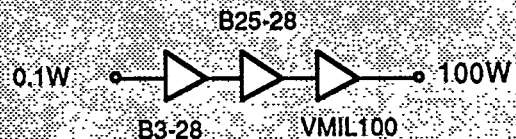
DIM	Millimeter	TOL	Inches	TOL	
L1 : C	A	5.71	.13	.225	.005
L2 : E	B	9.52 DIA	.13	.375 DIA	.005
L3 : B	C	0.13	.02	.005	.001
	D	1.78	.13	.070	.005
	E	4.06	.13	.160	.005
	F	14.59	.25	.585	.010
	G	3.30	.13	.130	.005
	H	1.52	.13	.060	.005
	I	25.40	.25	1.000	.010
	J	45°	5°	45°	5°
	K	19.00	REF	.748	REF

POWER OUTPUT VS POWER INPUT (TYPICAL)



TYPICAL AMPLIFIER LINE-UP

Vcc = 28 Volts
 Frequency Range = 100-200 MHz

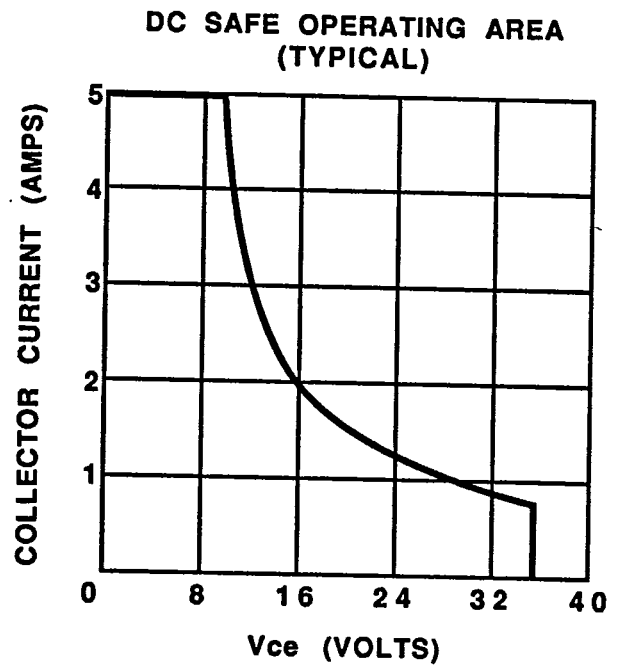
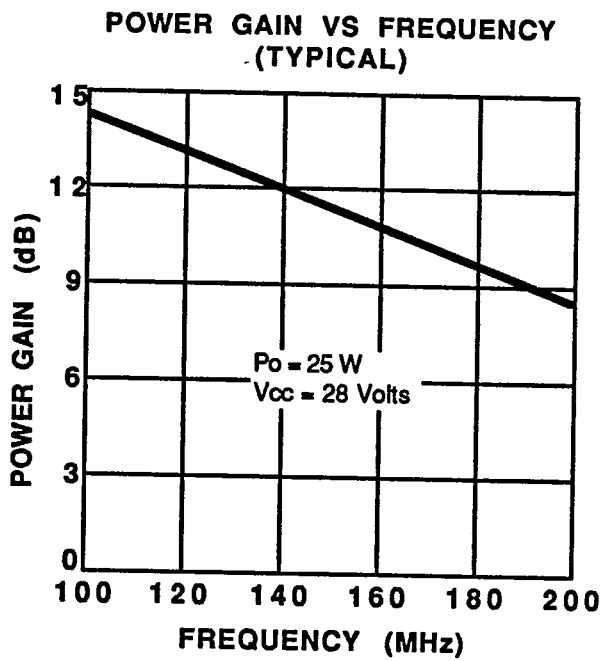


B25-28 (2N6199)-2

ELECTRICAL CHARACTERISTICS¹

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 175 MHz V _{cc} = 28V	25			Watts
P _{in}	Power Input				3.5	Watts
P _g	Power Gain			10		dB
η _c	Collector Efficiency			60		%
VSWR	Load Mismatch Tolerance				∞:1	
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 5mA	4.0			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 5mA	60			Volts
BV _{ceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 100mA	35			Volts
C _{ob}	Capacitance-Collector to Base	V _{cb} = 28V, f = 1MHz		50		pF
h _{FE}	DC-Current Gain	V _c = 5V, I _c = 1A	10			
θ _{jc}	Thermal Resistance				4.4	°C/W

Note 1: T_c = +25°C unless otherwise specified



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

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