

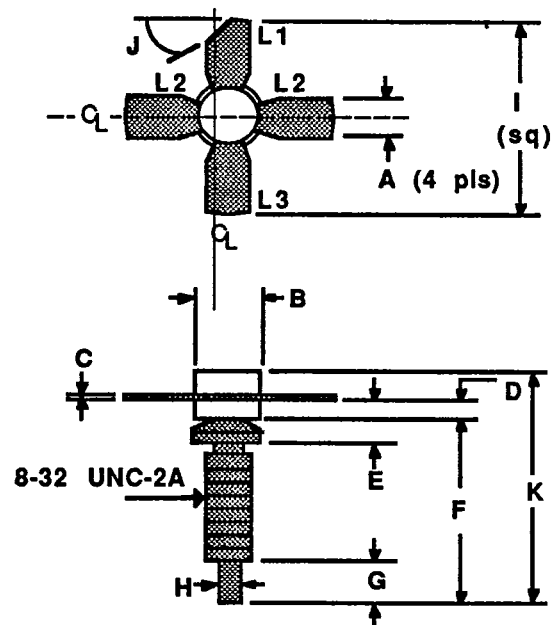
GENERAL DESCRIPTION

The B40-28 is specifically designed for VHF broadband linear power amplifier applications in the 100-200 MHz range. The device is capable of operation in Class A, AB or C amplifiers and provides the maximum power output/power gain combination.

B40-28 (2N6200)

40 WATTS - 28 VOLTS
100-200 MHz

VHF COMMUNICATIONS



| 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 |

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature 85 W

Maximum Voltage and Current

BV_{ces} Collector to Emitter Voltage 60 V

BV_{ebo} Emitter to Base Voltage 4.0 V

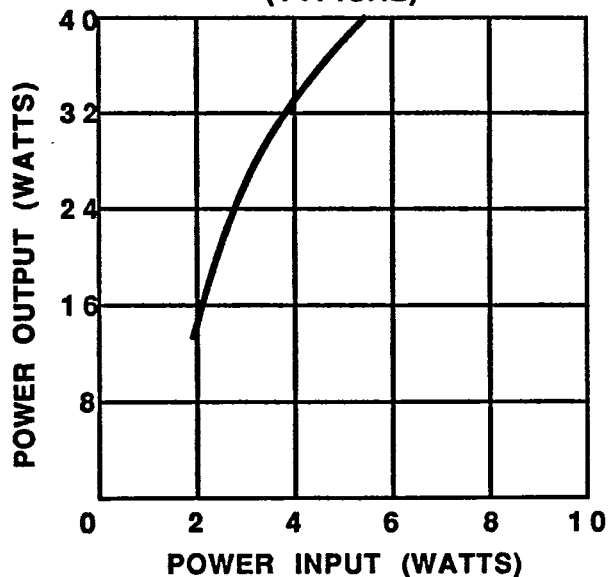
I_c Collector Current 8.5 A

Maximum Temperatures

Storage Temperature -65 to +150 °C

Operating Junction Temperature +200 °C

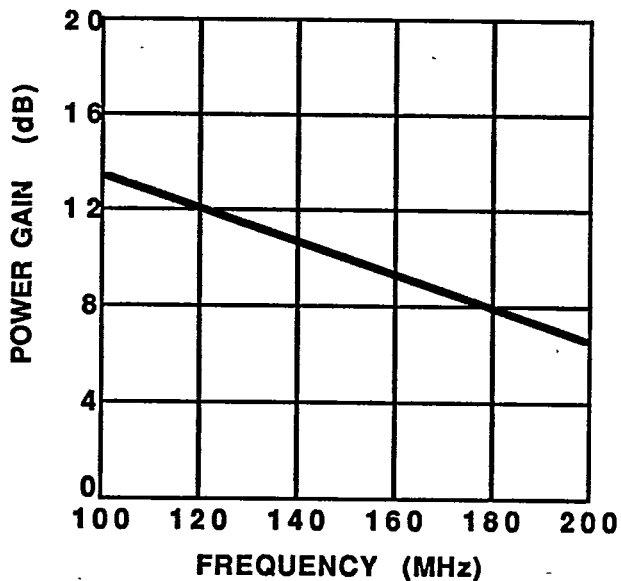
POWER OUTPUT VS POWER INPUT
(TYPICAL)



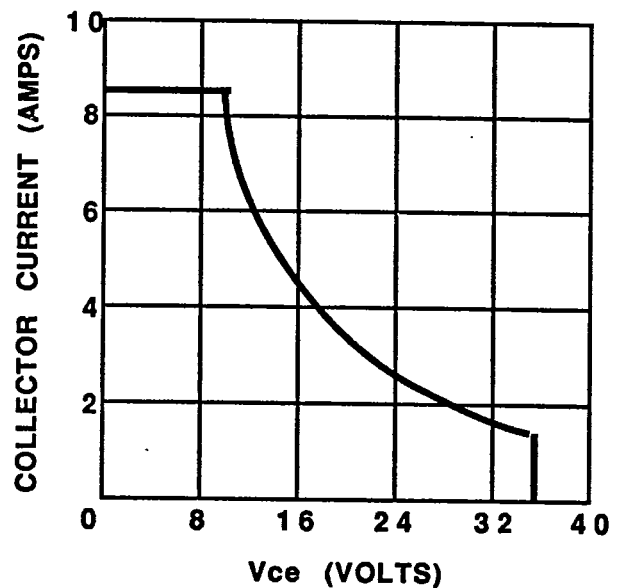
B40-28(2N6200)-2

ELECTRICAL CHARACTERISTICS¹

| SYMBOL | CHARACTERISTICS | TEST CONDITIONS | MIN. | TYP. | MAX. | UNITS |
|-------------------|--|---|------|------------|------|----------------------|
| P _{out} | Power Output | f = 175 MHz V _{cc} = 28V | 40 | | | Watts |
| P _{in} | Power Input | | | | 6.0 | Watts |
| P _g | Power Gain | | | 8.2 | | dB |
| η_c | Collector Efficiency | | | 60 | | % |
| VSWR | Load Mismatch Tolerance | | | $\infty:1$ | | |
| BV _{ebo} | Breakdown Voltage (Emitter to Base) | I _e = 5mA | 4.0 | | | Volts |
| BV _{ces} | Breakdown Voltage (Collector to Emitter) | I _c = 5mA | 60 | | | Volts |
| BV _{ceo} | Breakdown Voltage (Collector to Emitter) | I _c = 50mA | 33 | | | Volts |
| C _{ob} | Capacitance-Collector to Base | V _{cb} = 28V, f = 1 MHz | | | 150 | pF |
| h _{FE} | DC-Current Gain | V _{ce} = 5V, I _c = 1A | 10 | | | |
| θ_{jc} | Thermal Resistance | | | 2.6 | | $^{\circ}\text{C/W}$ |

Note 1: T_c = +25°C unless otherwise specifiedPOWER GAIN VS FREQUENCY
(TYPICAL)

DC SAFE OPERATING AREA



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

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