

**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**

**ABSOLUTE MAXIMUM RATINGS**

Maximum Power Dissipation @ 25°C Case Temperature **85 W**

**Maximum Voltage and Current**

BVces Collector to Emitter Voltage **60 V**

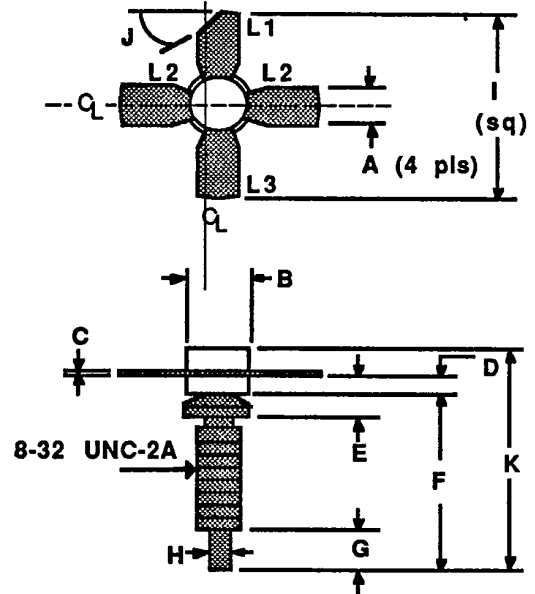
BVebo Emitter to Base Voltage **4.0 V**

Ic Collector Current **8.5 A**

**Maximum Temperatures**

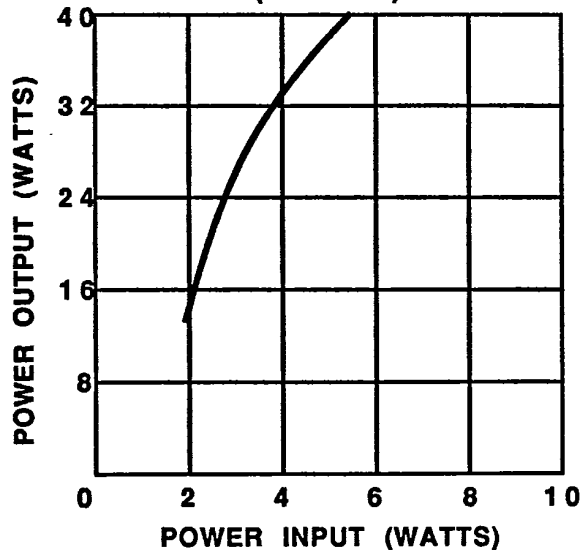
Storage Temperature **-65 to +150 °C**

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)**



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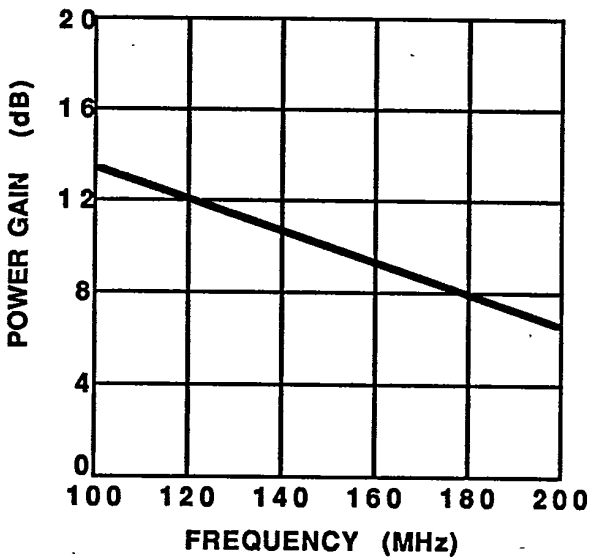
**B40-28(2N6200)-2**

**ELECTRICAL CHARACTERISTICS<sup>1</sup>**

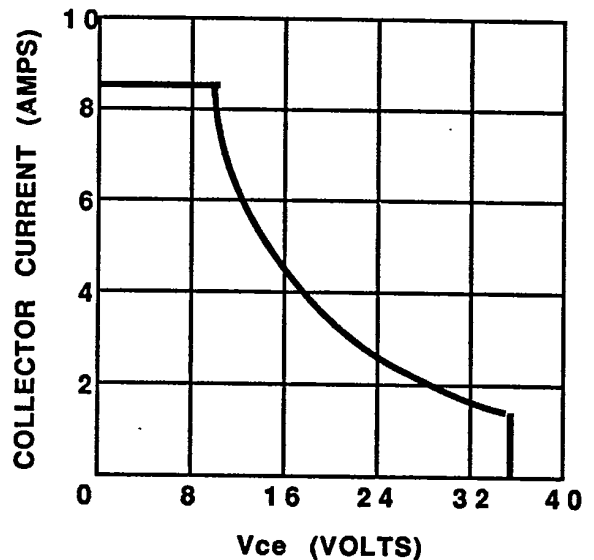
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P <sub>out</sub>	Power Output	f = 175 MHz V <sub>cc</sub> = 28V	40			Watts
P <sub>in</sub>	Power Input				6.0	Watts
P <sub>g</sub>	Power Gain			8.2		dB
η <sub>c</sub>	Collector Efficiency				60	%
VSWR	Load Mismatch Tolerance			∞:1		
BV <sub>ebo</sub>	Breakdown Voltage (Emitter to Base)	I <sub>e</sub> = 5mA	4.0			Volts
BV <sub>ces</sub>	Breakdown Voltage (Collector to Emitter)	I <sub>c</sub> = 5mA	60			Volts
BV <sub>ceo</sub>	Breakdown Voltage (Collector to Emitter)	I <sub>c</sub> = 50mA	33			Volts
C <sub>ob</sub>	Capacitance-Collector to Base	V <sub>cb</sub> = 28V, f = 1 MHz			150	pF
h <sub>FE</sub>	DC-Current Gain	V <sub>ce</sub> = 5V, I <sub>c</sub> = 1A	10			
θ <sub>jc</sub>	Thermal Resistance			2.6		°C/W

Note 1: T<sub>c</sub> = +25°C unless otherwise specified

**POWER GAIN VS FREQUENCY (TYPICAL)**



**DC SAFE OPERATING AREA**



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

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