B40-28 (2N6200)

40 WATTS - 28 VOLTS
100-200 MHz

VHF COMMUNICATIONS

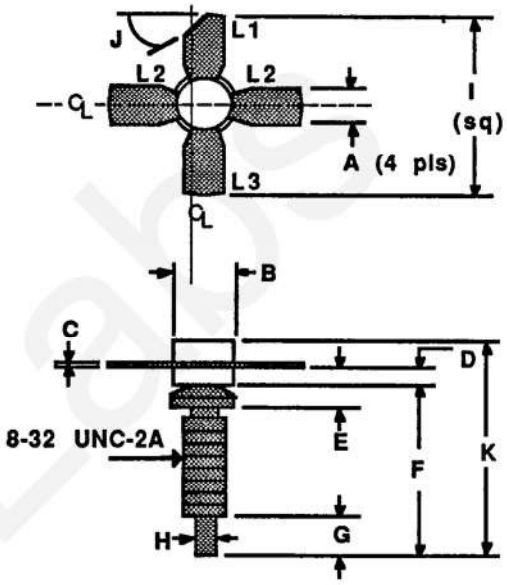
GENERAL DESCRIPTION

The B40-28 is specifically designed for VHF broadband linear power amplfier 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.

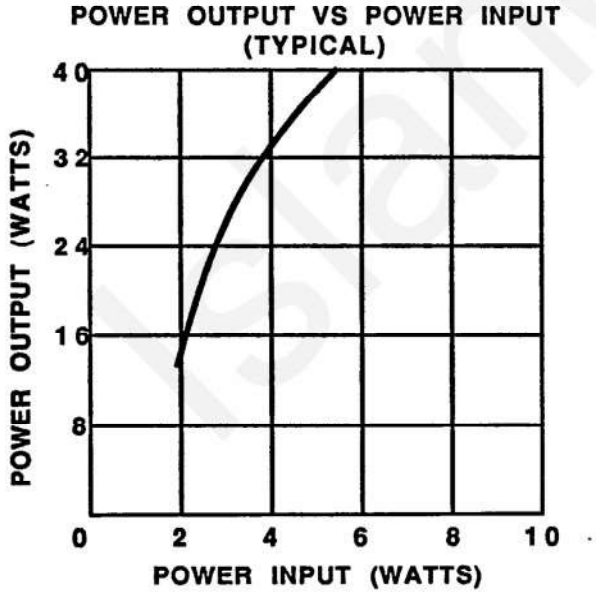
Island Labs

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 JunctionTemperature	+200 °C



L1 : C L2 : E L3 : B	DIM	Millimeter	TOL	Inches	TOL
	A	5.71	.13	.225	.005
	B	9.52 DIA	.13	.375 DIA	.005
	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



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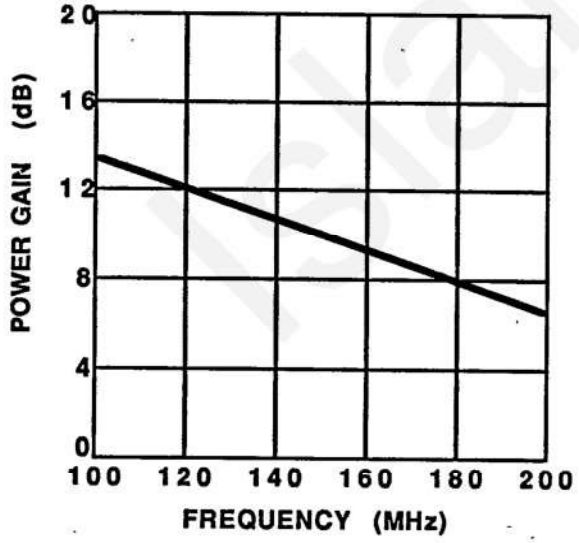
ELECTRICAL CHARACTERISTICS[1]

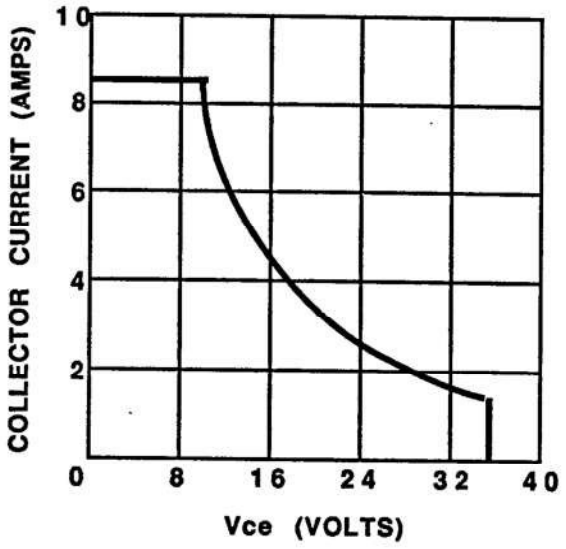
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Pout	Power Output	f= 175 MHz Vcc= 28V	40			Watts
Pin	Power Input				6.0	Watts
Pg	Power Gain			8.2		dB
η_c	Collector Efficiency			60		%
VSWR	Load Mismatch Tolerance		∞:1			
BVebo	Breakdown Voltage (Emitter to Base)	Ie= 5mA	4.0			Volts
BVces	Breakdown Voltage (Collector to Emitter)	Ic= 5mA	60			Volts
BVceo	Breakdown Voltage (Collector to Emitter)	Ic= 50mA	33			Volts
Cob	Capacitance- Collector to Base	Vcb= 28V, f= 1 MHz			150	pF
h_{FE}	DC-Current Gain	Vce= 5V, Ic= 1A	10			
θjc	Thermal Resistance			2.6		°C/W

Note 1: Tc = +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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