



S200 – 50

200 Watts, 50 Volts, Class AB or C
Milcom 1.5 - 30 MHz

GENERAL DESCRIPTION

The S200-50 is a COMMON EMITTER, HF, SSB device intended for operation from a 50 Volts supply. It may be operated in Class A, AB or C. The device exhibits excellent linearity and ruggedness.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 320 Watts

Maximum Voltage and Current

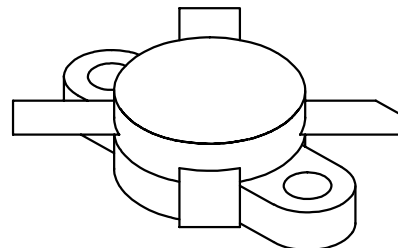
BVces Collector to Emitter Voltage 110 Volts
BVebo Emitter to Base Voltage 4.0 Volts
Ic Collector Current 30 A

Maximum Temperatures

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

CASE OUTLINE

55HX, Style 2



ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P_{out}	Power Output	F = 30 MHz	200			Watts
P_{in}	Power Input	V _{cc} = 50 Volts			12	Watts
P_g	Power Gain	Class C Bias	12	14.5		dB
η_c	Efficiency			60		%
VSWR	Load Mismatch Tolerance				30:1	

BVebo	Emitter to Base Breakdown	I _e = 20 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	I _c = 100 mA	110			Volts
BVceo	Collector to Emitter Breakdown	I _e = 200 mA	70			Volts
Cob	Output Capacitance	V _{cb} = 50V, F = 1 MHz		300		pF
h_{FE}	DC - Current Gain	V _{ce} = 5 V, I _c = 1 A	10			
θ_{jc}	Thermal Resistance				.55	°C/W

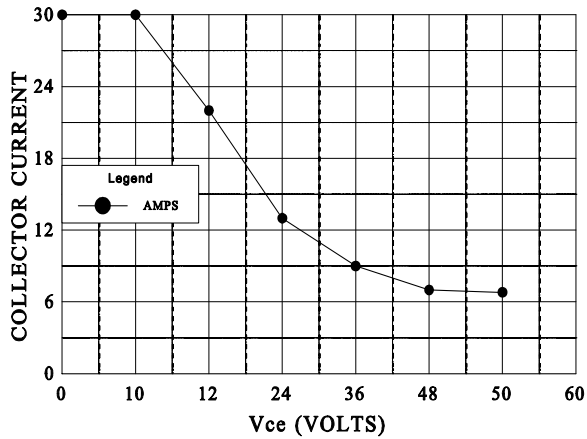
Rev. A August 2005

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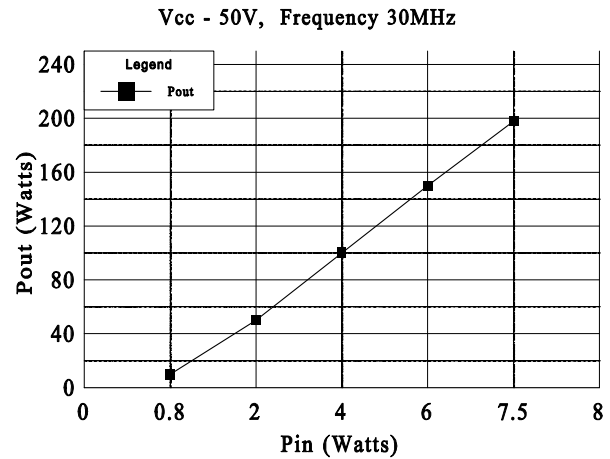


S200-50

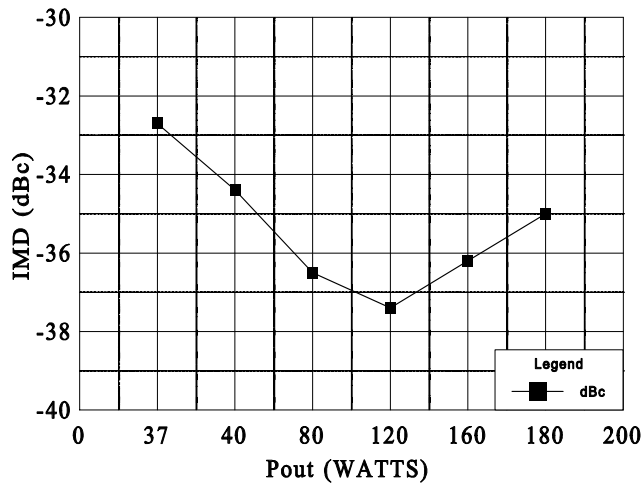
DC SAFE OPERATING AREA



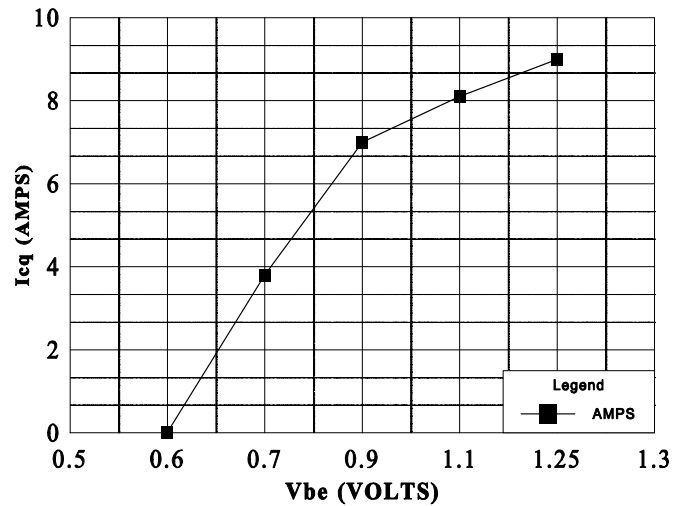
POWER OUTPUT vs POWER INPUT

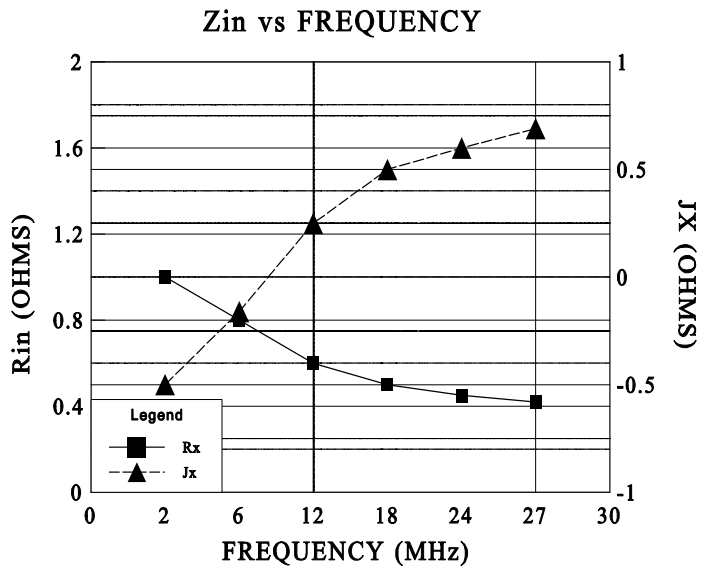


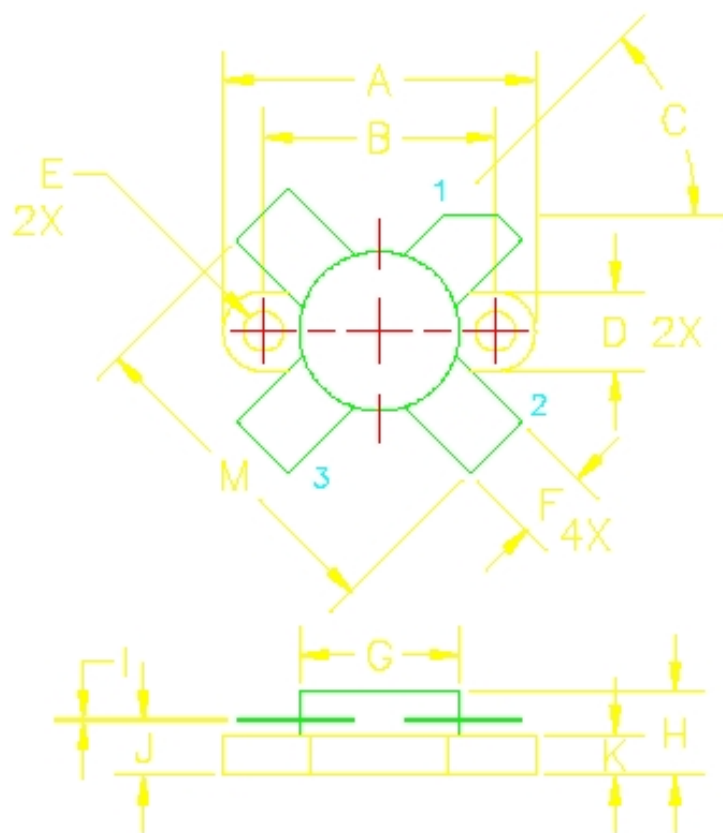
IMD vs Pout



Icq vs Vbe



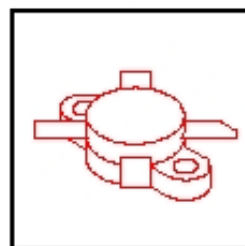




DIM	MILLIMETER	±TOL	INCHES	±TOL
A	24.76	.13	.975	.005
B	18.42	.13	.725	.005
C	45°	5°	45°	5°
D	6.35	.13	.250	.005
E	3.17	.13	.125	.005
F	5.71	.13	.225	.005
G	12.70	.13	.500 DIA	.005
H	6.60	REF	.260	REF
I	0.13	.02	.005	.001
J	4.32	.25	.170	.010
K	2.59	.25	.102	.010
M	31.75	MAX	1.250	MAX

STYLE 1:
 PIN1 = COLLECTOR
 2 = BASE (2X)
 3 = EMITTER

STYLE 2:
 PIN1 = COLLECTOR
 2 = EMITTER (2X)
 3 = BASE



DWG NO.

55HX

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