

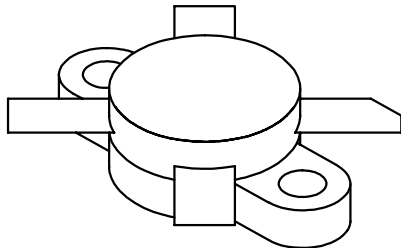


**THE DATASHEET OF  
S200-50**



# S200 – 50

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

<p><b>GENERAL DESCRIPTION</b> 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.</p>	<p><b>CASE OUTLINE</b> <b>55HX, Style 2</b></p> 
<p><b>ABSOLUTE MAXIMUM RATINGS</b></p> <p>Maximum Power Dissipation @ 25°C                      320 Watts</p> <p><b>Maximum Voltage and Current</b></p> <p>BVces    Collector to Emitter Voltage                      110 Volts BVebo    Emitter to Base Voltage                              4.0 Volts Ic         Collector Current                                         30 A</p> <p><b>Maximum Temperatures</b></p> <p>Storage Temperature                                         - 65 to +150°C Operating Junction Temperature                             +150°C</p>	

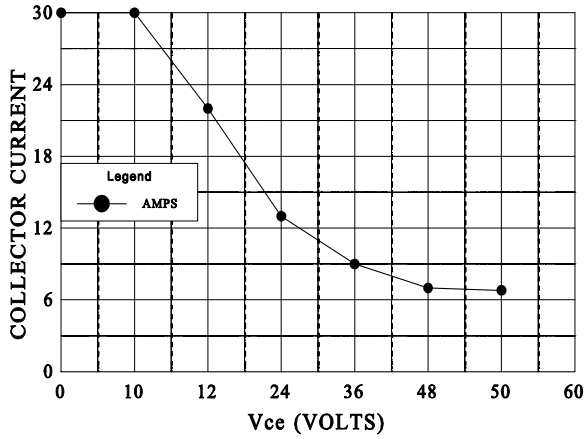
## ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
<b>Pout</b>	Power Output	F = 30 MHz	200			Watts
<b>Pin</b>	Power Input	Vcc = 50 Volts			12	Watts
<b>Pg</b>	Power Gain	Class C Bias	12	14.5		dB
<b>ηc</b>	Efficiency			60		%
<b>VSWR</b>	Load Mismatch Tolerance				30:1	

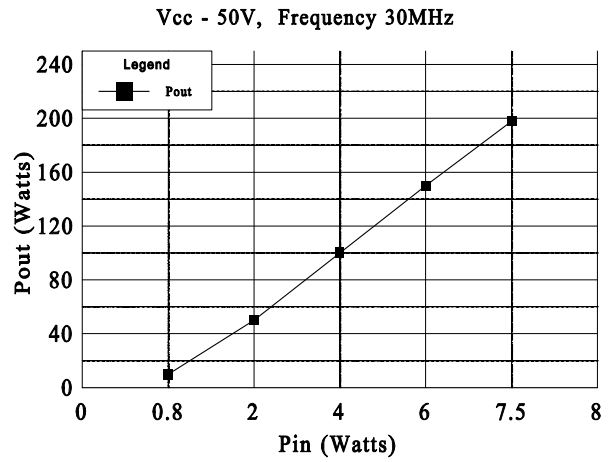
<b>BVebo</b>	Emitter to Base Breakdown	Ie = 20 mA	4.0			Volts
<b>BVces</b>	Collector to Emitter Breakdown	Ic = 100 mA	110			Volts
<b>BVceo</b>	Collector to Emitter Breakdown	Ie = 200 mA	70			Volts
<b>Cob</b>	Output Capacitance	Vcb = 50V, F = 1 MHz		300		pF
<b>hFE</b>	DC - Current Gain	Vce = 5 V, Ic = 1 A	10			
<b>θjc</b>	Thermal Resistance				.55	°C/W

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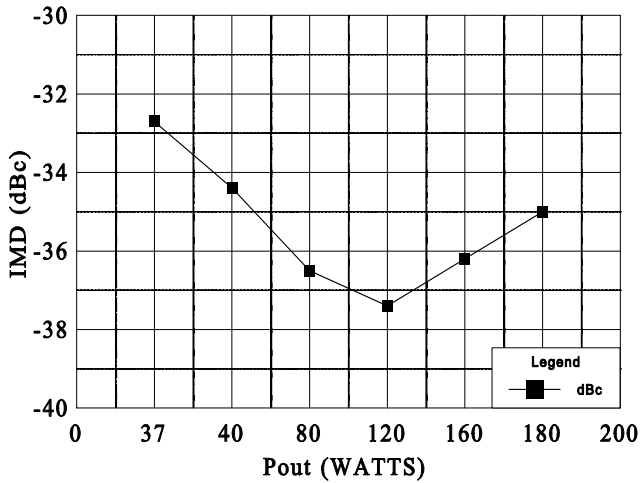
**DC SAFE OPERATING AREA**



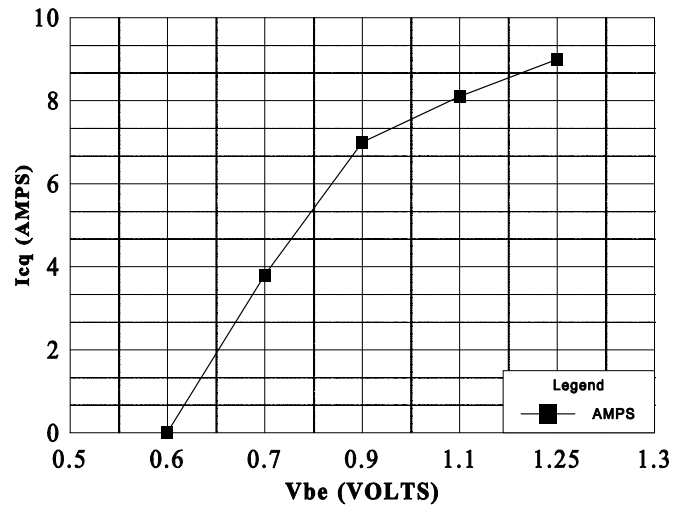
**POWER OUTPUT vs POWER INPUT**



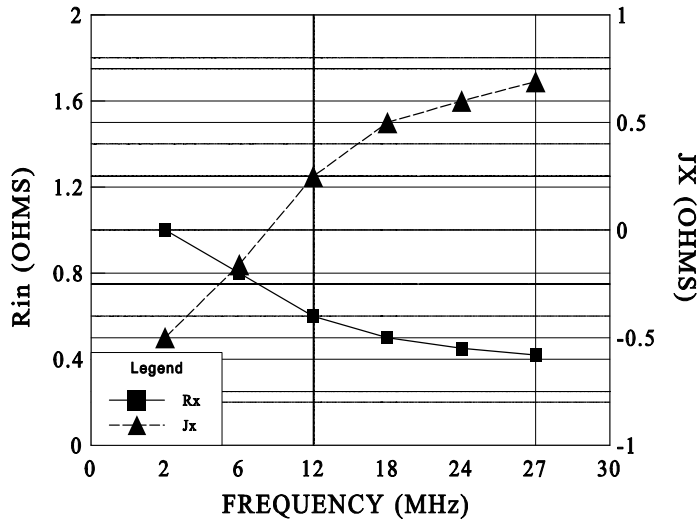
**IMD vs Pout**

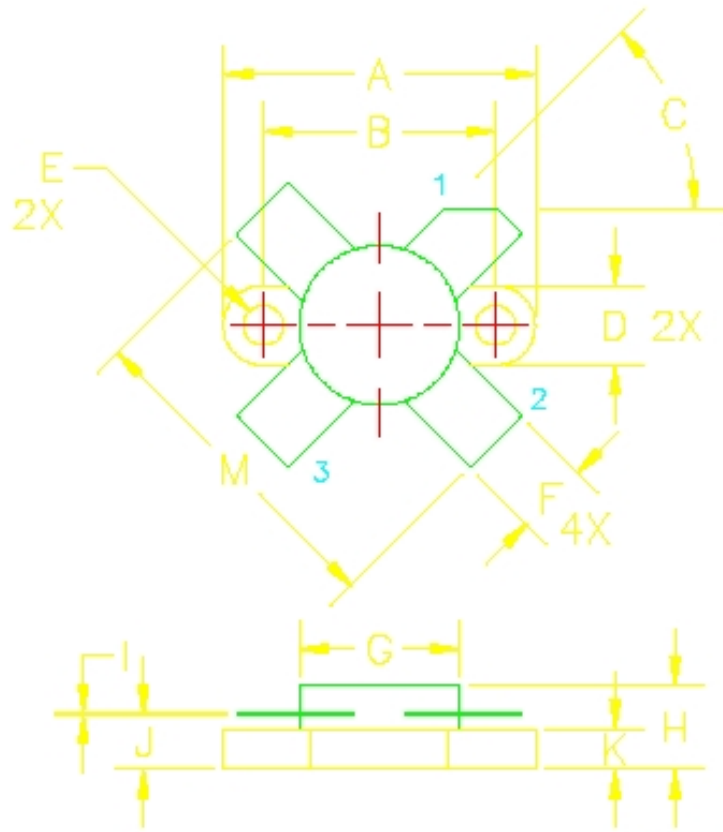


**Icq vs Vbe**



Zin vs FREQUENCY

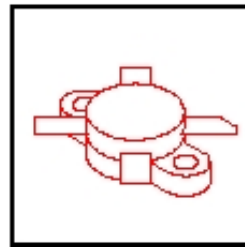




DIM	MILLIMETER	±TOL	INCHES	±TOL
A	24.76	.13	.975	.005
B	18.42	.13	.725	.005
C	45°	5°	45°	5°
D	6.35	.13	.250	.005
E	3.17	.13	.125	.005
F	5.71	.13	.225	.005
G	12.70	.13	.500 DIA	.005
H	6.60	REF	.260	REF
I	0.13	.02	.005	.001
J	4.32	.25	.170	.010
K	2.59	.25	.102	.010
M	31.75	MAX	1.250	MAX

**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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