

GENERAL DESCRIPTION

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

S200-50
200 WATTS - 50 VOLTS
30 MHz

HF COMMUNICATIONS

ABSOLUTE MAXIMUM RATINGS

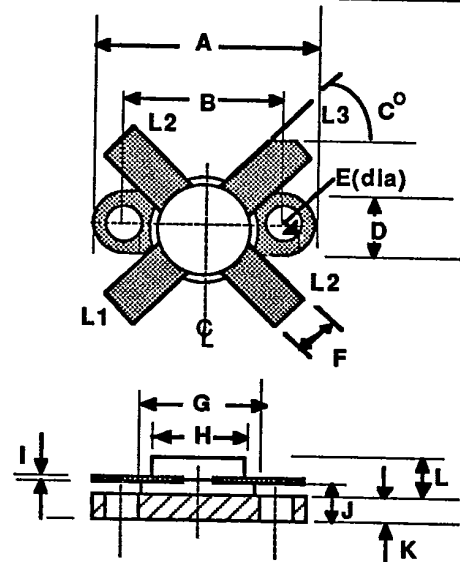
Maximum Power Dissipation @ 25 C Case Temperature **320 W**

Maximum Voltage and Current

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

Maximum Temperatures

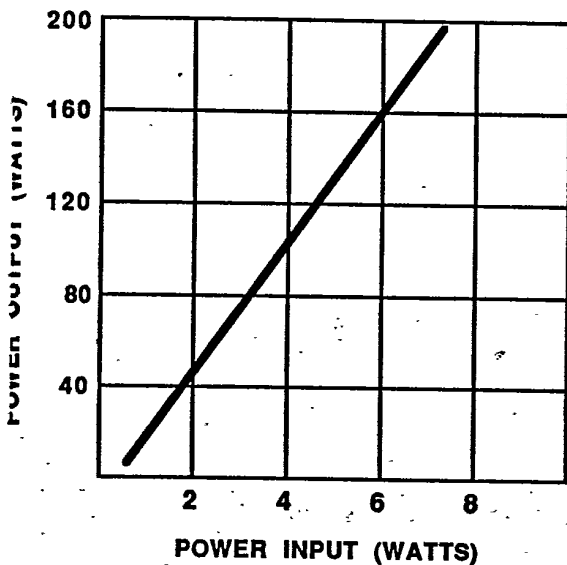
Storage Temperature **-65 to +150°C**
 Operating Junction Temperature **+200°C**



L1 : B
 L2 : E
 L3 : C

DIM	Millimeter	TOL	Inches	TOL
A	24.64	.25	0.97	.01
B	18.42	.25	0.725	.01
C	45 DEG	5		
D	6.35	.25	0.25	.01
E	3.18	.25	0.125	.01
F	5.72	.25	0.225	.01
G	12.58	.25	0.495	.01
H	10.69	.25	0.42	.01
I	.125	.025	0.005	.001
J	4.15	.25	0.163	.01
K	3.14	.25	0.124	.01
L	4.02	.25	0.16	.01

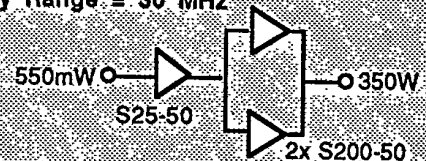
POWER OUTPUT VS POWER INPUT



TYPICAL AMPLIFIER LINE UP

Vcc = 50 Volts

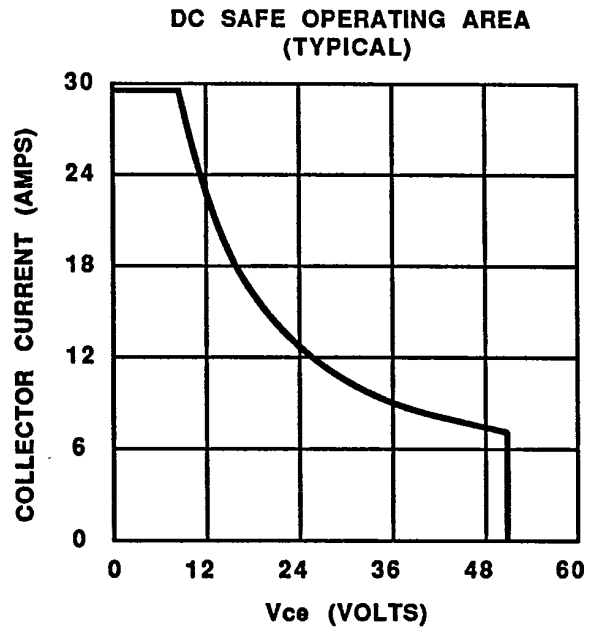
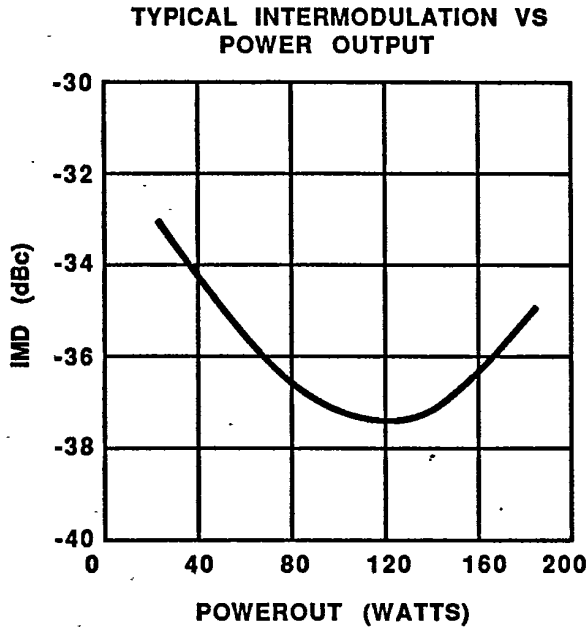
Frequency Range = 30 MHz



S200-50-2

ELECTRICAL CHARACTERISTICS

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f=30MHz V _c =50V	200			Watts
P _{in}	Power Input				12	Watts
P _g	Power Gain		-12			dB
VSWR ₁	Load Mismatch Tolerance				30:1	
η _c	Collector Efficiency			60		%
BV _{ebo}	Voltage - Emitter to Base	I _e = 20mA	4.0			Volts
BV _{ces}	Voltage - Collector to Emitter	I _c =100mA	110			Volts
BV _{ceo}	Voltage - Collector to Emitter	I _c =200mA	70			Volts
IMD	Intermodulation Distortion Level	At rated power out		-34	-32	dBc
C _{cb}	Capacitance-Collector to Base			300		pF
θ _{jc}	Thermal Resistance				.55	°C/W
h _{FE}	DC Current Gain	V _c = 5V, I _c = 1A	10			

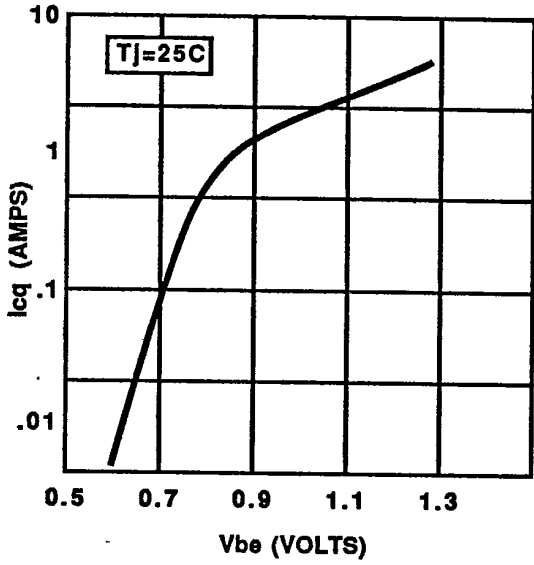


SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

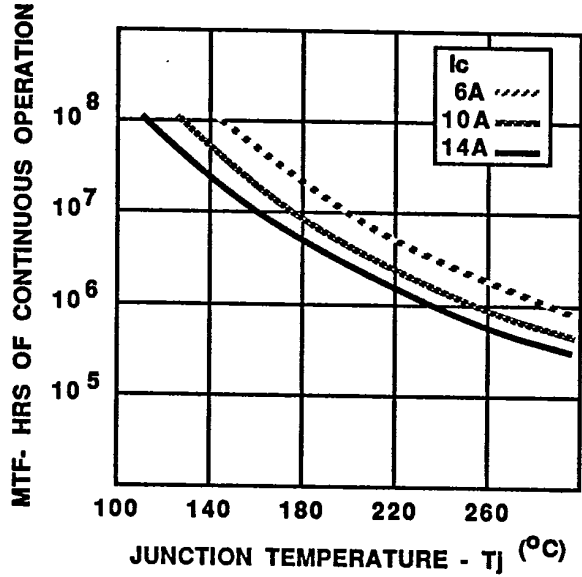
138

S200-50-3

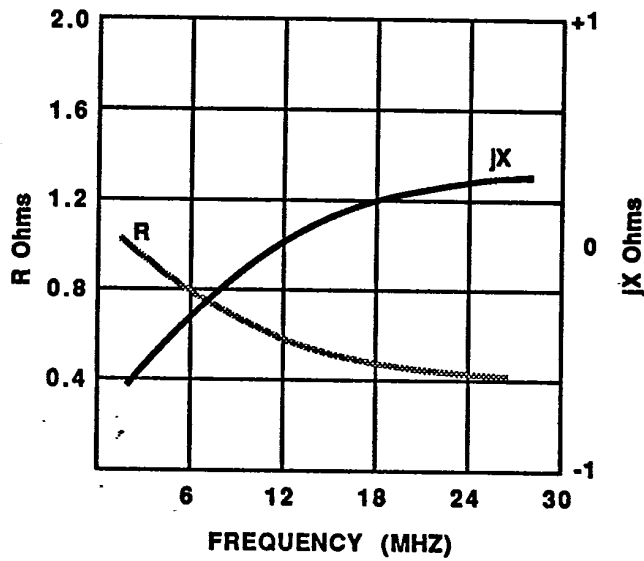
**Ic_q VS V_{be}
(TYPICAL)**



MEDIAN TIME TO FAILURE



**SERIES Z_{in} VS FREQUENCY
(TYPICAL)**



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