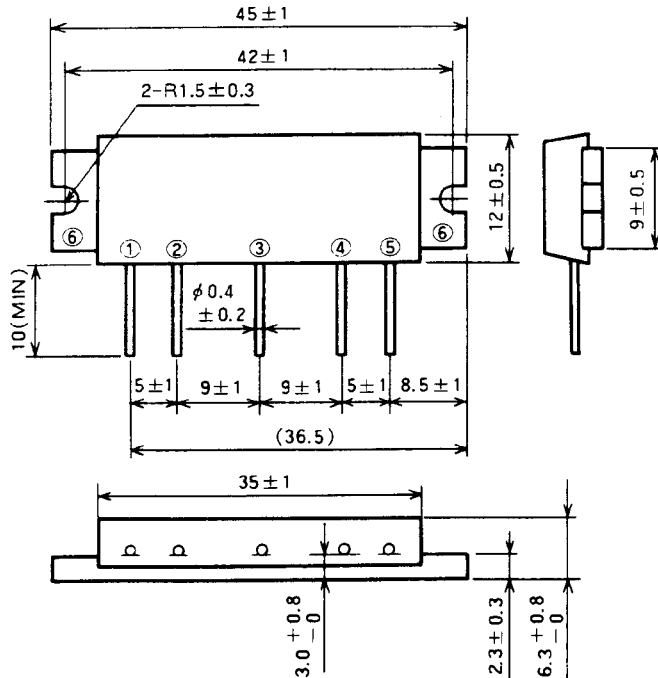


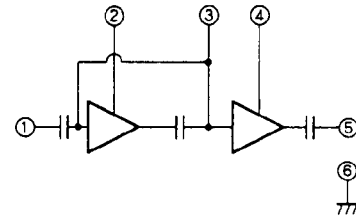
OUTLINE DRAWING

Dimensions in mm



H13

BLOCK DIAGRAM



PIN :

- ① P_{in} : RF INPUT
- ② V_{CC1} : 1st. DC SUPPLY
- ③ V_{BB} : BASE BIAS SUPPLY
- ④ V_{CC2} : 2nd. DC SUPPLY
- ⑤ P_o : RF OUTPUT
- ⑥ GND : FIN

ABSOLUTE MAXIMUM RATINGS ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage		16	V
V_{BB}	Base bias		6	V
I_{CC}	Total current		4	A
$P_{in(max)}$	Input power	$Z_G = Z_L = 50 \Omega$, $V_{CC1} \leq 12.5V$	40	mW
$P_{o(max)}$	Output power	$Z_G = Z_L = 50 \Omega$	10	W
$T_{c(OP)}$	Operation case temperature		-30 to 110	$^\circ\text{C}$
T_{stg}	Storage temperature		-40 to 110	$^\circ\text{C}$

Note. Above parameters are guaranteed independently.

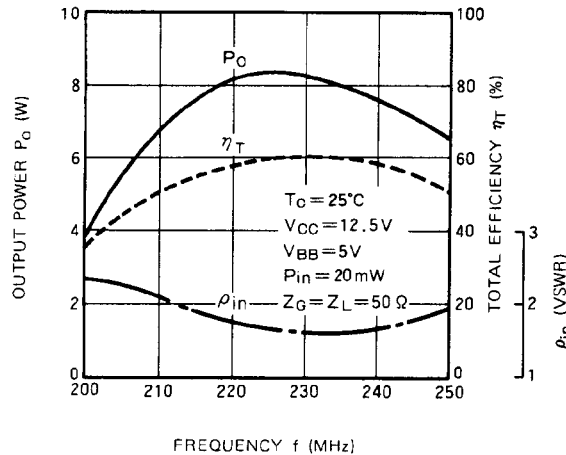
ELECTRICAL CHARACTERISTICS ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	$P_{in} = 20\text{mW}$ $V_{BB} = 5V$ $V_{CC} = 12.5V$ $Z_G = Z_L = 50 \Omega$	220	225	MHz
P_o	Output power		7		W
η_T	Total efficiency		45		%
$2f_o$	2nd. harmonic			-20	dBc
$3f_o$	3rd. harmonic			-30	dBc
ρ_{in}	Input VSWR			2.5	-
-	Load VSWR tolerance	$V_{CC} = 13.2V$, $V_{BB} = 5V$ $P_o = 7W$ (P_{in} : controlled) Load VSWR $\geq 20:1$ (All phase), 2sec. $Z_G = 50 \Omega$	No degradation or destroy		-

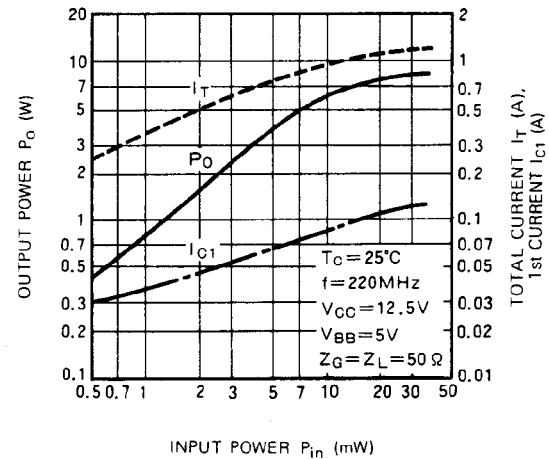
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

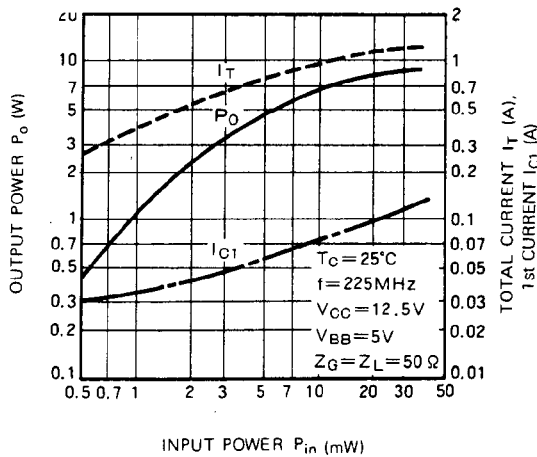
OUTPUT POWER, TOTAL EFFICIENCY,
 P_{in} VS. FREQUENCY CHARACTERISTICS



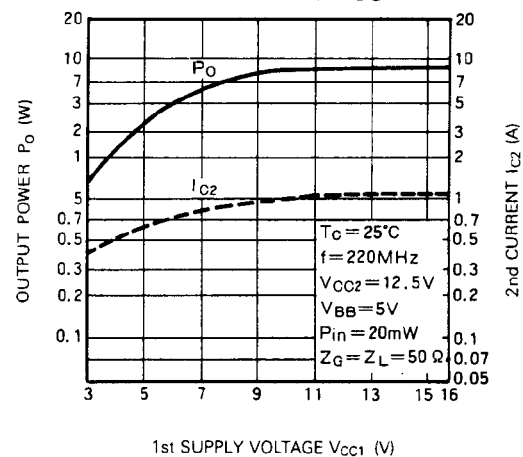
OUTPUT POWER, TOTAL CURRENT,
 1st CURRENT VS. INPUT
 POWER CHARACTERISTICS



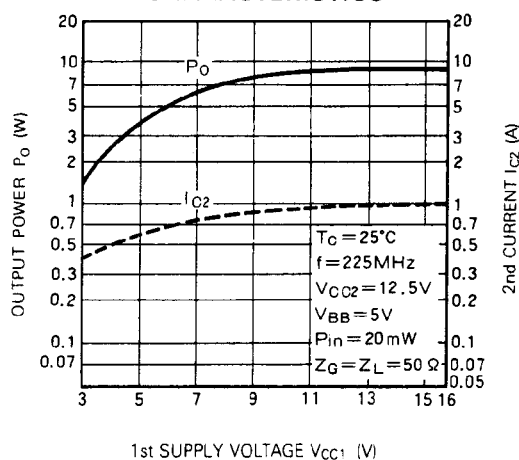
OUTPUT POWER, TOTAL CURRENT,
 1st CURRENT VS. INPUT
 POWER CHARACTERISTICS



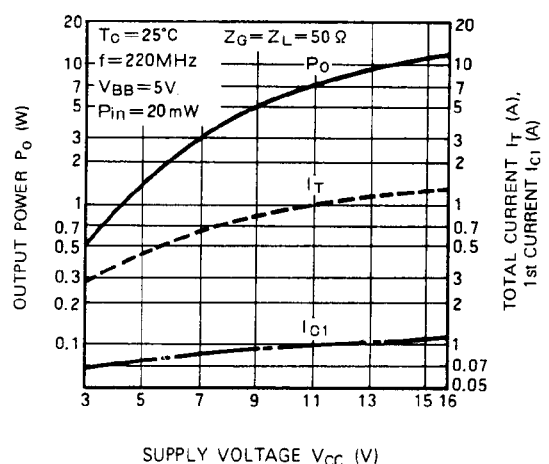
OUTPUT POWER, 2nd CURRENT
 VS. 1st SUPPLY VOLTAGE
 CHARACTERISTICS



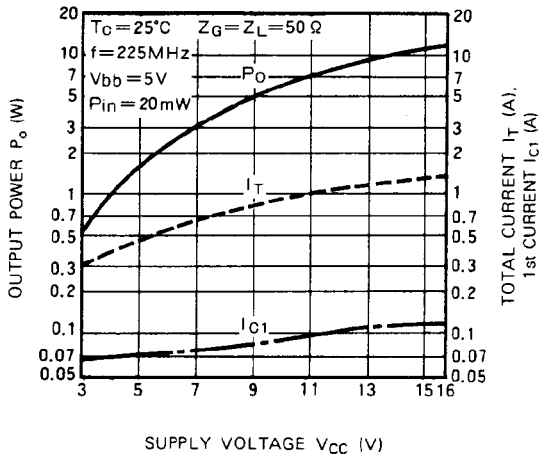
OUTPUT POWER, 2nd CURRENT
 VS. 1st SUPPLY VOLTAGE
 CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT,
 1st CURRENT VS. SUPPLY
 VOLTAGE CHARACTERISTICS



OUTPUT POWER, TOTAL CURRENT,
1st CURRENT VS. SUPPLY
VOLTAGE CHARACTERISTICS



2nd, 3rd HARMONIC VS. FREQUENCY
CHARACTERISTICS

