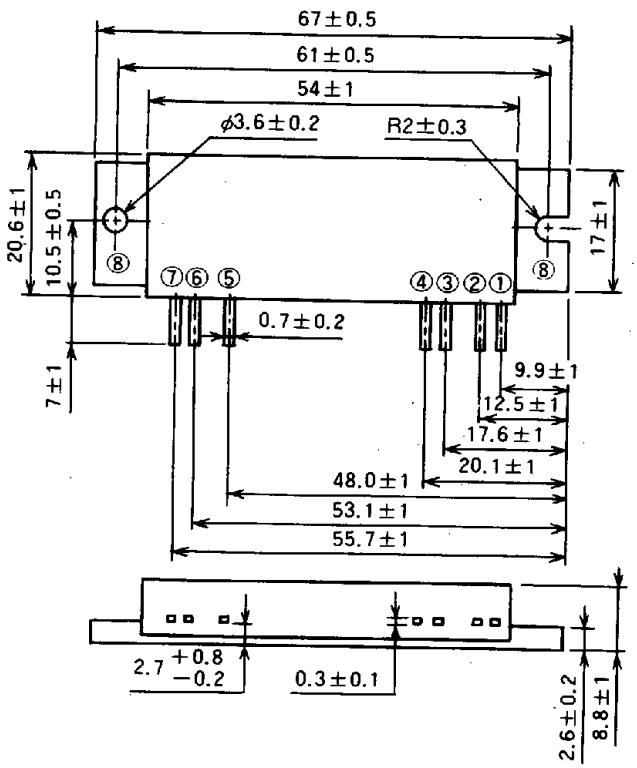
M67729H2

450-460MHz, 12.5V, 20W, FM MOBILE RADIO

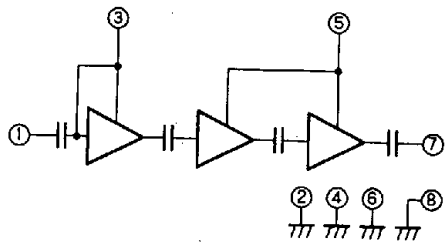
OUTLINE DRAWING

Dimensions in mm



H18

BLOCK DIAGRAM



PIN :
①Pin : RF INPUT
②GND
③V_{CC1} : 1st. DC SUPPLY
④GND
⑤V_{CC2} : 2nd. DC SUPPLY
⑥GND
⑦Po : RF OUTPUT
⑧GND : FIN

ABSOLUTE MAXIMUM RATINGS (Tc = 25℃ unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V_{CC}	Supply voltage		16	V
I_{CC}	Total current		6	A
$P_{in(max)}$	Input power	$Z_G = Z_L = 50\ \Omega$, $V_{CC1} \leqq 12.5V$	0.3	W
$P_{O(max)}$	Output power	$Z_G = Z_L = 50\ \Omega$	30	W
$T_{C(OP)}$	Operation case temperature		−30 to 110	℃
T_{stg}	Storage temperature		−40 to 110	℃

Note. Above parameters are guaranteed independently.

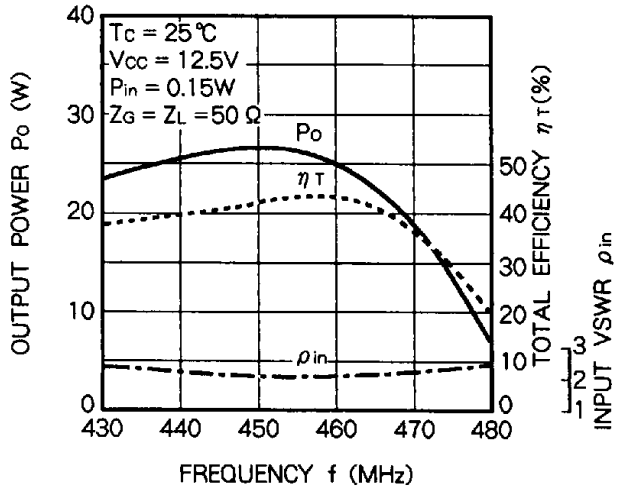
ELECTRICAL CHARACTERISTICS (Tc = 25℃ unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P_{in} = 0.15W V_{CC} = 12.5V $Z_G = Z_L = 50\ \Omega$	450	460	MHz
Po	Output power		20		W
η_T	Total efficiency		35		%
2fo	2nd. harmonic			−40	dBc
3fo	3rd. harmonic			−40	dBc
ρ_{in}	Input VSWR			2	−
−	Load VSWR tolerance	V_{CC} = 15.5V, Po = 25W (P_{in} : controlled) Load VSWR=20:1 (All phase), 2sec. $Z_G = 50\ \Omega$	No degradation or destroy		−

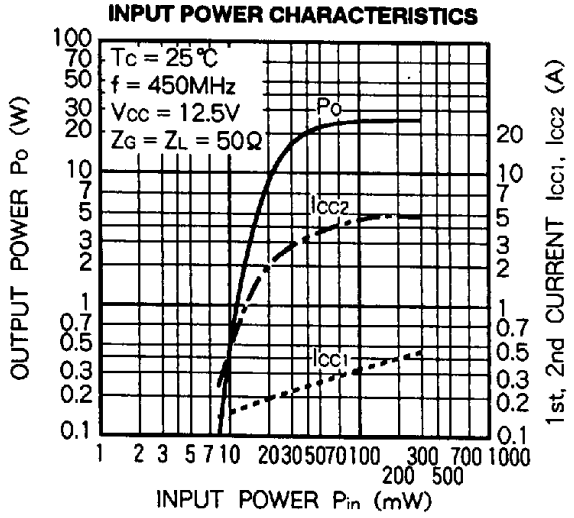
Note. Above parameters, ratings, limits and conditions are subject to change.

TYPICAL PERFORMANCE DATA

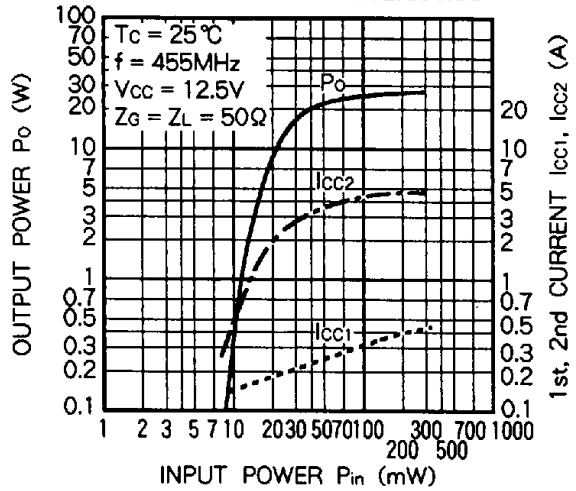
OUTPUT POWER, TOTAL EFFICIENCY, INPUT VSWR VS. FREQUENCY CHARACTERISTICS



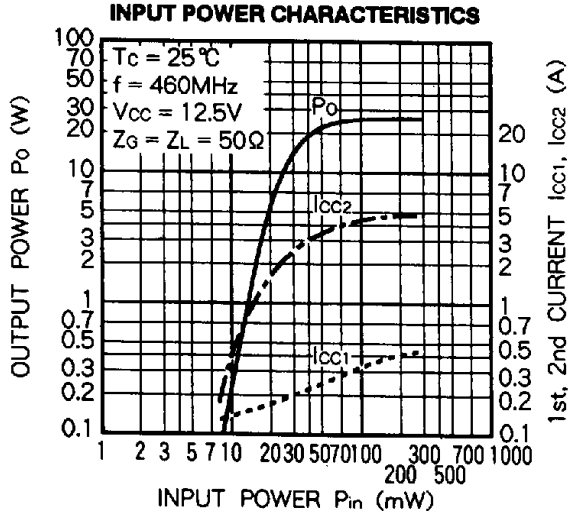
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



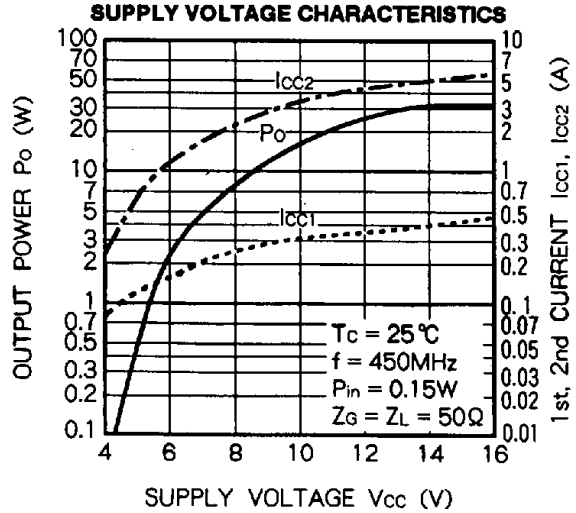
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



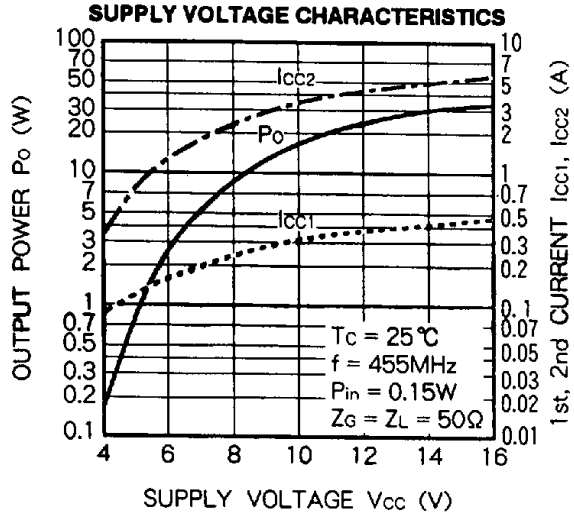
OUTPUT POWER, 1st, 2nd CURRENT VS. INPUT POWER CHARACTERISTICS



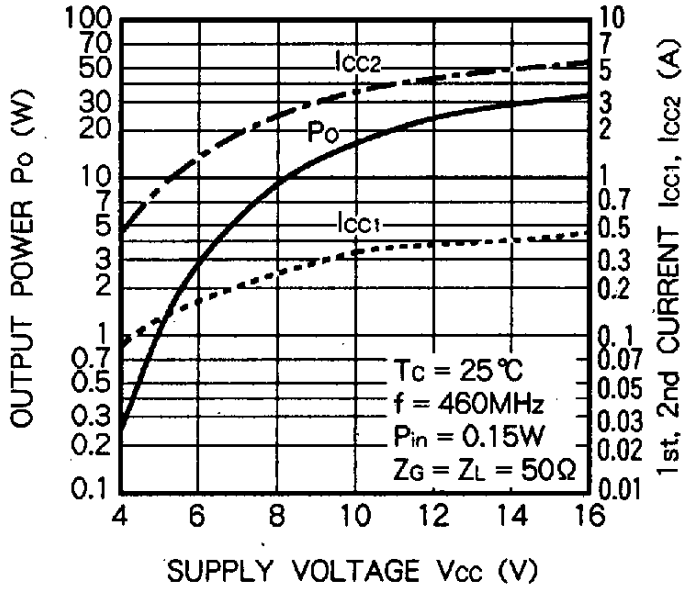
OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



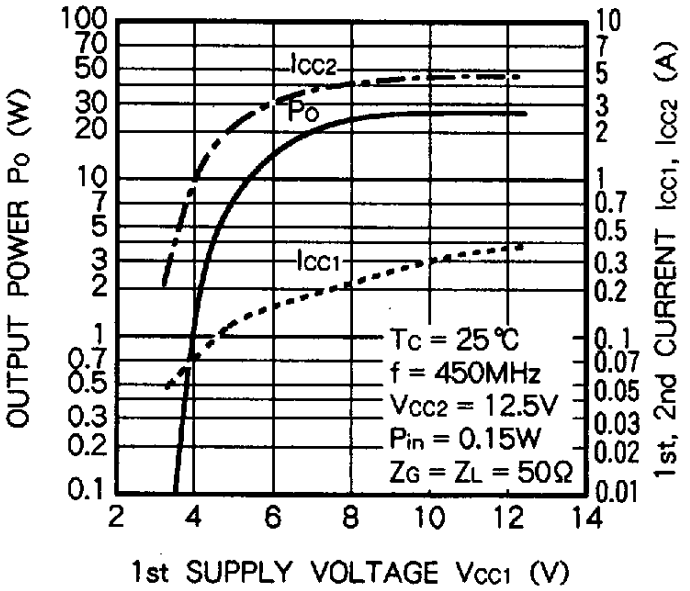
OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



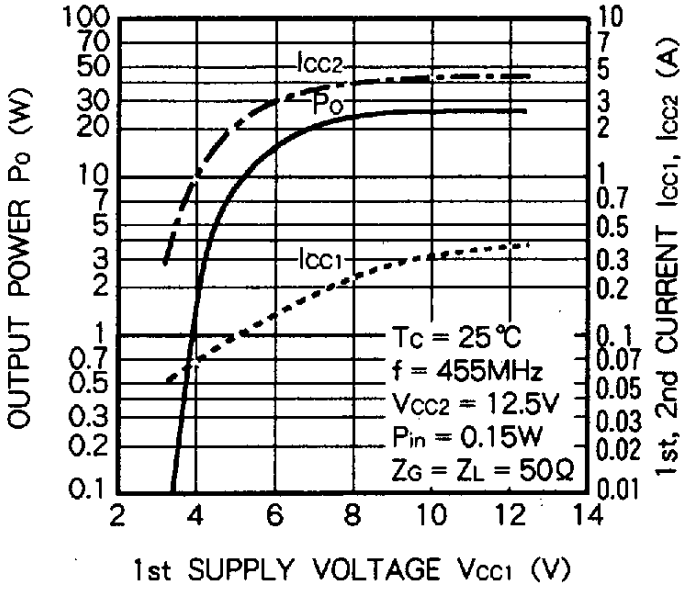
OUTPUT POWER, 1st, 2nd CURRENT VS. SUPPLY VOLTAGE CHARACTERISTICS



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



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



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