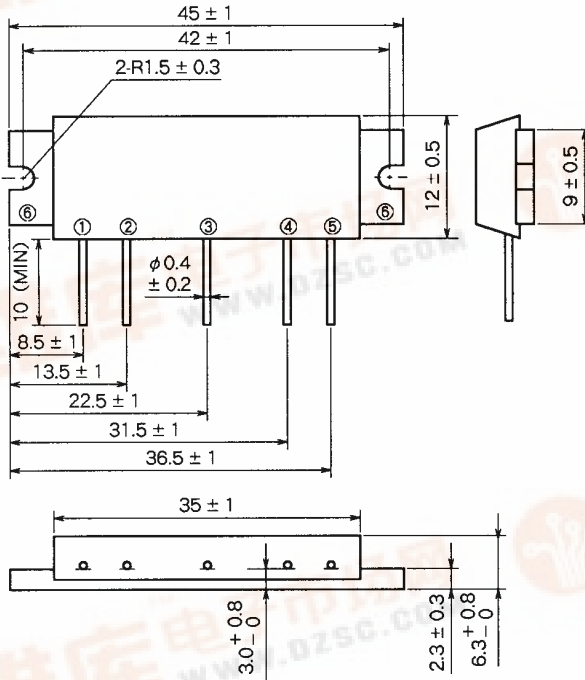


M67715

1240-1300MHz, 8V, 1.2W, SSB PORTABLE RADIO

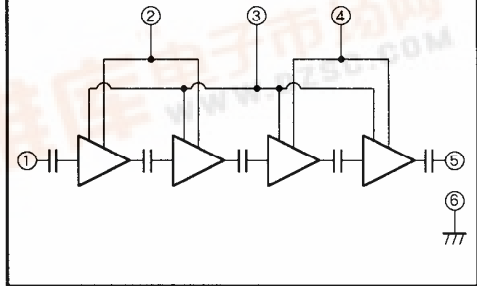
OUTLINE DRAWING

Dimensions in mm



H13

BLOCK DIAGRAM



PIN :

- ① Pin : RF INPUT
- ② VCC1 : 1st. DC SUPPLY
- ③ VBB : BASE BIAS SUPPLY
- ④ VCC2 : 2nd. DC SUPPLY
- ⑤ Po : RF OUTPUT
- ⑥ GND : FIN

ABSOLUTE MAXIMUM RATINGS (Tc = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
VCC1	Supply voltage		9	V
VCC2		16	V	
VBB	Base bias		9	V
Icc	Total current		1.5	A
Pin(max)	Input power	ZG = ZL = 50 Ω	10	mW
Po(max)	Output power	ZG = ZL = 50 Ω	4	W
Tc(OP)	Operation case temperature		- 20 to 100	°C
Tstg	Storage temperature		- 40 to 110	°C

Note. Above parameters are guaranteed independently.

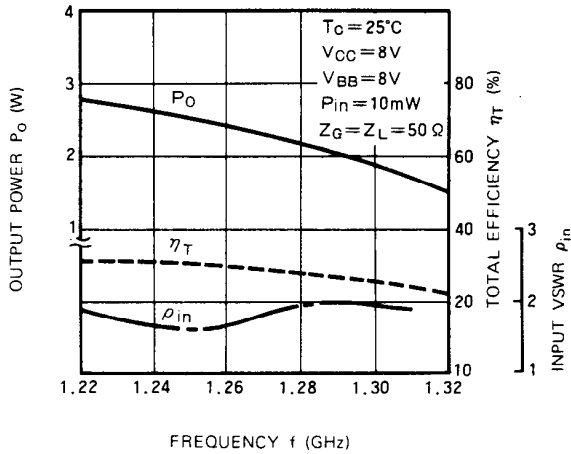
ELECTRICAL CHARACTERISTICS (Tc = 25 °C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	VCC1 = VCC2 = VBB = 8V Pin = 10mW ZG = ZL = 50 Ω	1240	1300	MHz
Po	Output power		1.2		W
ηT	Total efficiency		18		%
2fo	2nd. harmonic			- 30	dBc
3fo	3rd. harmonic			- 35	dBc
ρin	Input VSWR			2.5	-
-	Load VSWR tolerance	VCC1 = 9V, VCC2 = 15.2V, VBB = 9V Po = 1.5W(Pin : controlled), ZG = 50Ω Load VSWR=10:1 (All phase), 5sec	No degradation or destroy		-
IMD3	3rd. inter modulation distortion	VCC1=VCC2=VBB=8V Po(PEP)=1.26W, Δf=20kHz, ZG=ZL=50Ω		- 23	dBc
IMD5	5th. inter modulation distortion	VCC1=VCC2=VBB=8V Po(PEP)=1.26W, Δf=20kHz, ZG=ZL=50Ω		- 30	dBc

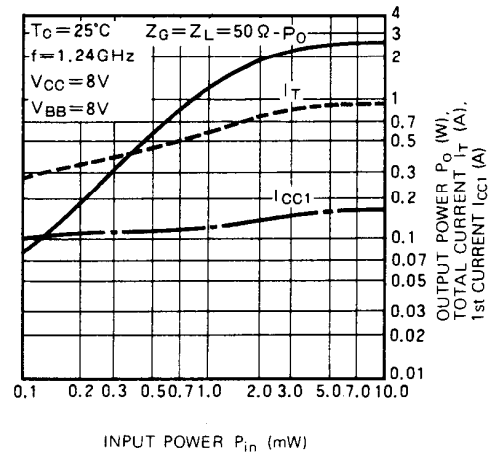
Note. Above parameters, ratings, limits and conditions are subject to change.



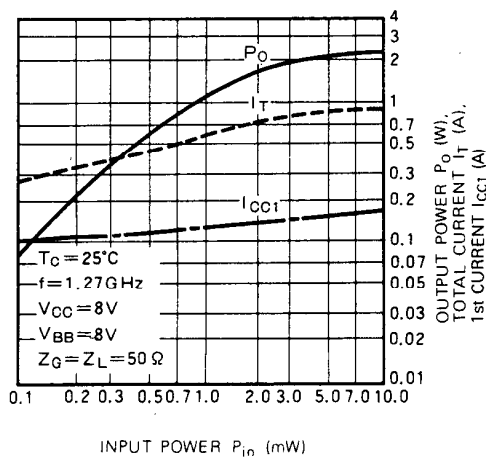
TYPICAL PERFORMANCE DATA
OUTPUT POWER, TOTAL EFFICIENCY,
 ρ_{in} VS. FREQUENCY CHARACTERISTICS



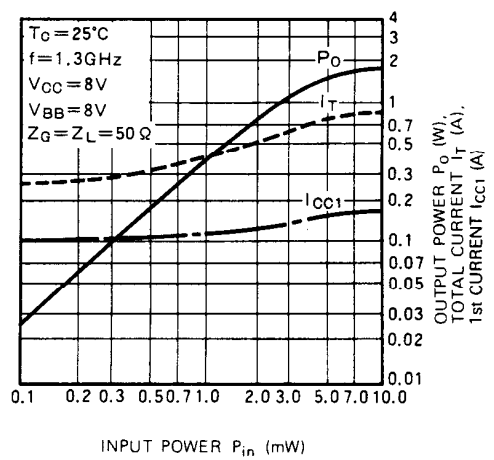
OUTPUT POWER, TOTAL CURRENT,
1st CURRENT VS. INPUT
POWER CHARACTERISTICS



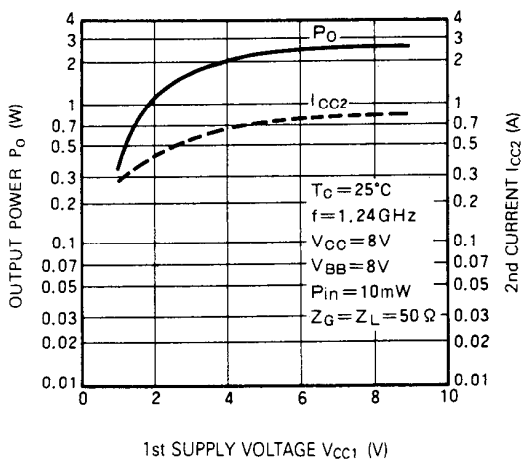
OUTPUT POWER, TOTAL CURRENT,
1st CURRENT VS. INPUT
POWER CHARACTERISTICS



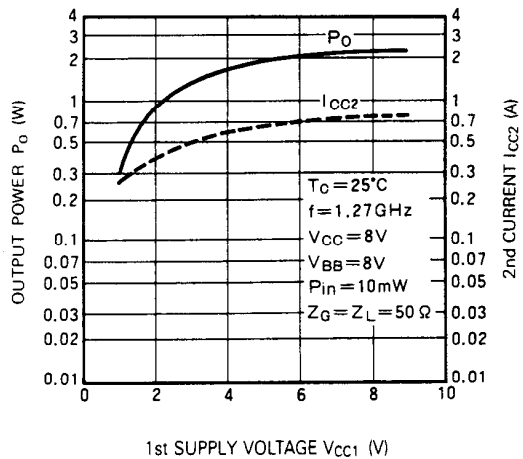
OUTPUT POWER, TOTAL CURRENT,
1st CURRENT VS. INPUT
POWER CHARACTERISTICS



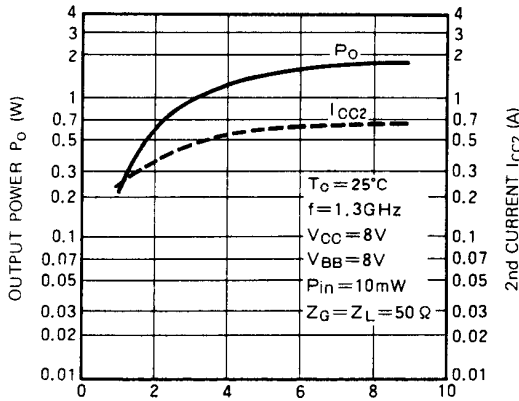
OUTPUT POWER, 2nd CURRENT
VS. 1st SUPPLY VOLTAGE
CHARACTERISTICS



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

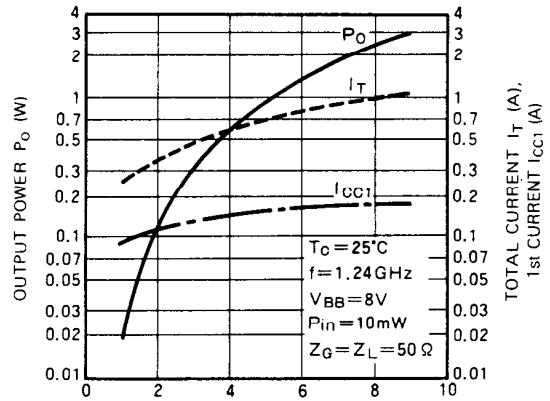


OUTPUT POWER, 2nd CURRENT VS. 1st SUPPLY VOLTAGE CHARACTERISTICS



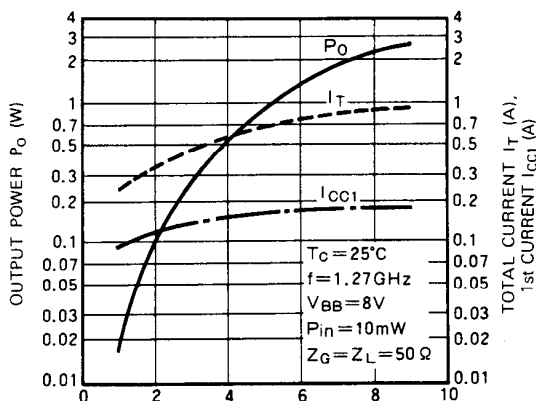
1st SUPPLY VOLTAGE V_{CC1} (V)

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



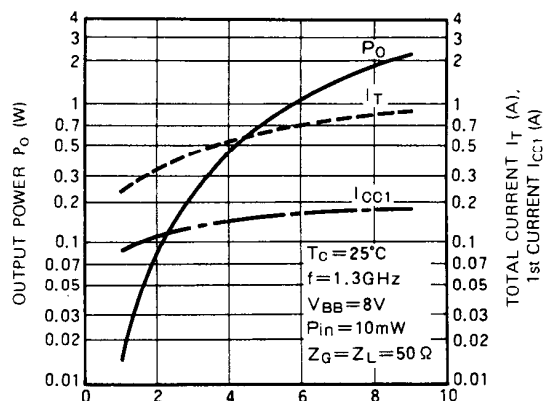
SUPPLY VOLTAGE V_{CC} (V)

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



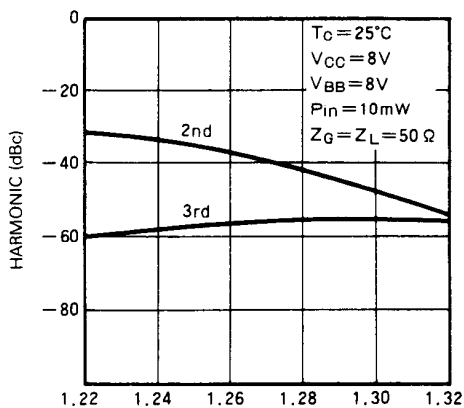
SUPPLY VOLTAGE V_{CC} (V)

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



SUPPLY VOLTAGE V_{CC} (V)

2nd, 3rd HARMONIC VS. FREQUENCY CHARACTERISTICS



FREQUENCY f (GHz)