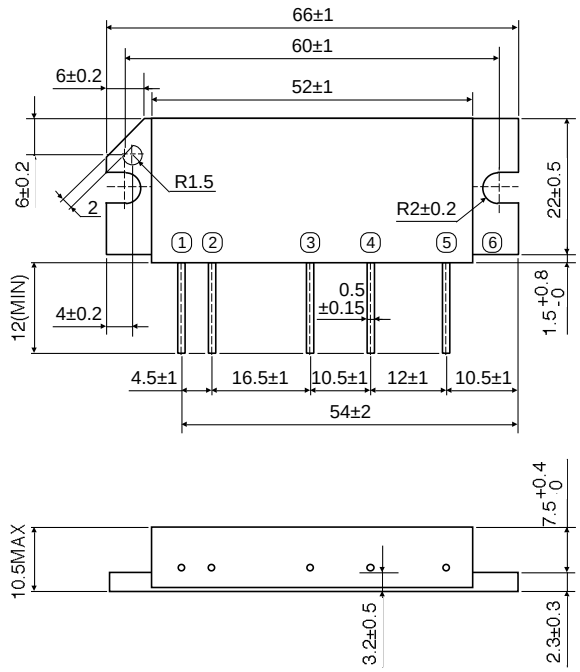
M67760LC

806-870MHz, 12.5V, 20W, FM MOBILE RADIO

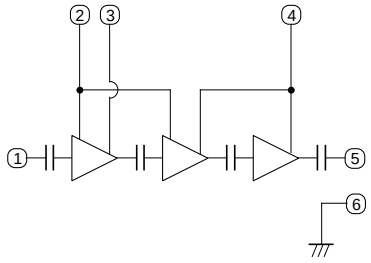
OUTLINE DRAWING

Dimensions in mm



H3

BLOCK DIAGRAM



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

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

Symbol	Parameter	Conditions	Ratings	Unit
V_{BB}	Base bias		9.5	V
V_{CC1}	Supply voltage	V_{BB}=9V	14	V
V_{CC2}	Supply voltage	Z_G=Z_L=50Ω, V_{BB}=9V	16.5	V
I_{CC}	Total current	Z_G=Z_L=50Ω, V_{CC1}≤12.5V	8.5	A
$P_{in\ (max)}$	Input power	f=806-870MHz, Z_G=Z_L=50Ω	0.8	W
$P_{O\ (max)}$	Output power	Z_G=Z_L=50Ω	25	W
$T_{C\ (OP)}$	Operation case temperature	Z_G=Z_L=50Ω	-30 to +110	°C
T_{stg}	Strage temperature		-40 to +110	°C

Note. Above parameters are guaranteed independently.

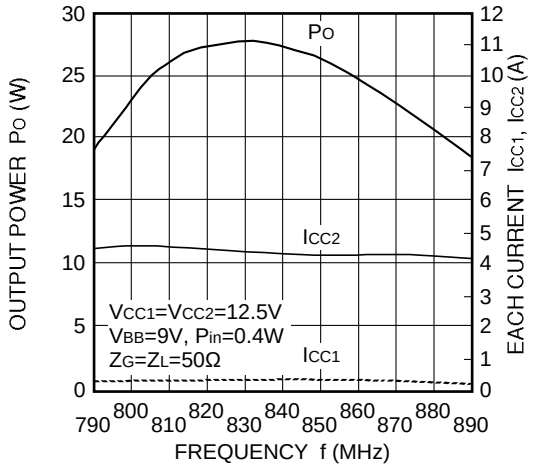
ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise noted)

Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range		806	870	MHz
P_O	Output power	V_{BB}=9V, V_{CC1}=V_{CC2}=12.5V, P_{in}=0.4W, Z_G=Z_L=50Ω	20		W
η_T	Total efficiency	V_{BB}=9V, V_{CC1}=V_{CC2}=12.5V, Z_G=Z_L=50Ω, P_O=20W (P_{in}:controlled)	25		%
$2f_O$	2nd. harmonic			-30	dBc
ρ_{in}	Input VSWR			3	-
-	Load VSWR tolerance	V_{BB}=9V, V_{CC1}=12.5V, V_{CC2}=15.5V, P_O=20W (P_{in}:controlled), Z_G=50Ω, Load VSWR=20:1 (All phase)	No degradation or destroy		-
-	Stability	V_{BB}=9V, f=806-825, 851-870MHz, V_{CC1}=10 to 12.5V, V_{CC2}=10 to 15.5V (V_{CC1}≤V_{CC2}), P_O=0 to 20W (P_{in}:controlled less than 0.4W), Z_G=50Ω, Load VSWR≤3:1 (All phase)	No oscillation more than -60dBc		-

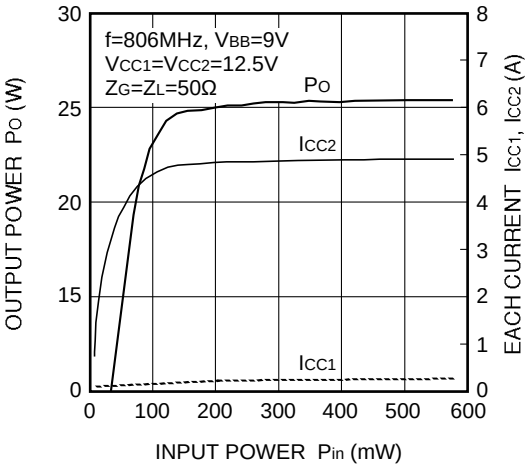
Note. Above parameters, ratings, limits and test conditions are subject to change.

TYPICAL PERFORMANCE DATA

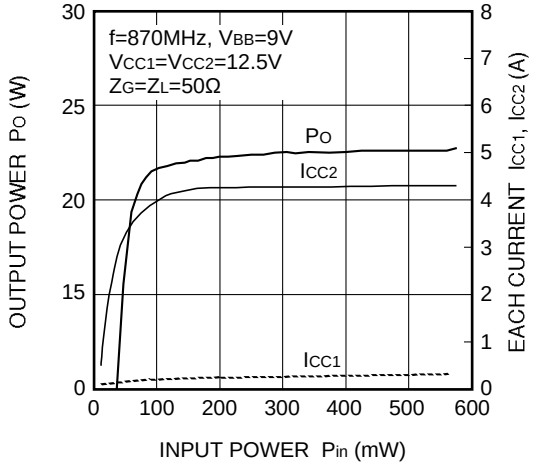
OUTPUT POWER, EACH CURRENT VS. FREQUENCY



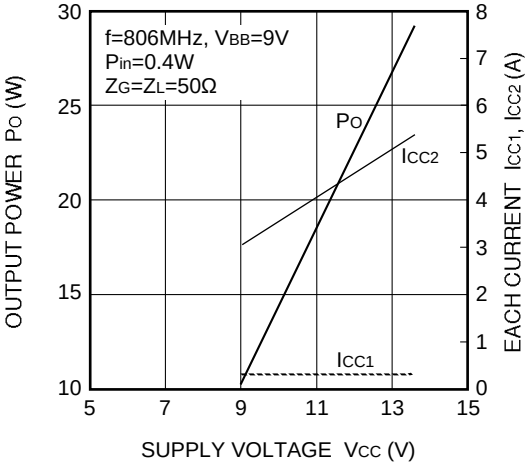
OUTPUT POWER, EACH CURRENT VS. INPUT POWER



OUTPUT POWER, EACH CURRENT VS. INPUT POWER



OUTPUT POWER, EACH CURRENT VS. SUPPLY VOLTAGE



OUTPUT POWER, EACH CURRENT VS. SUPPLY VOLTAGE