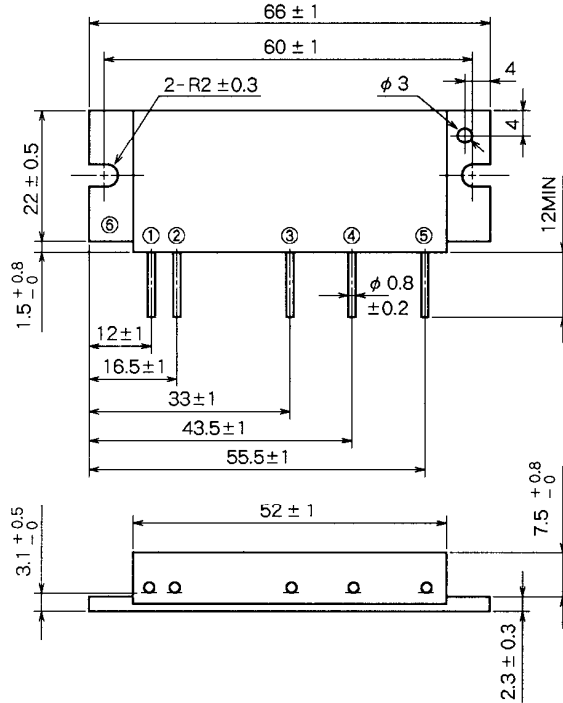


# M57788SH

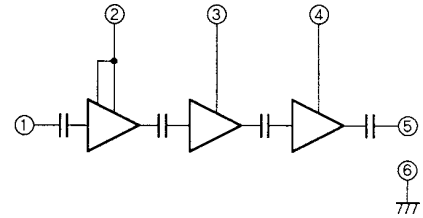
490-512MHz, 12.5V, 40W, FM MOBILE RADIO

## OUTLINE DRAWING

Dimensions in mm



## BLOCK DIAGRAM



PIN :

- ① Pin : RF INPUT
- ② Vcc1 : 1st. DC SUPPLY
- ③ Vcc2 : 2nd. DC SUPPLY
- ④ Vcc3 : 3rd. DC SUPPLY
- ⑤ Po : RF OUTPUT
- ⑥ GND : FIN

## ABSOLUTE MAXIMUM RATINGS (T<sub>c</sub> = 25 °C unless otherwise noted)

Symbol	Parameter	Conditions	Ratings	Unit
V <sub>CC1</sub>	Supply voltage		16	V
V <sub>CC2,3</sub>			17	V
I <sub>CC</sub>	Total current		12	A
P <sub>in(max)</sub>	Input power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	0.5	W
P <sub>o(max)</sub>	Output power	Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	50	W
T <sub>C(OP)</sub>	Operation case temperature		- 30 to 110	°C
T <sub>stg</sub>	Storage temperature		- 40 to 110	°C

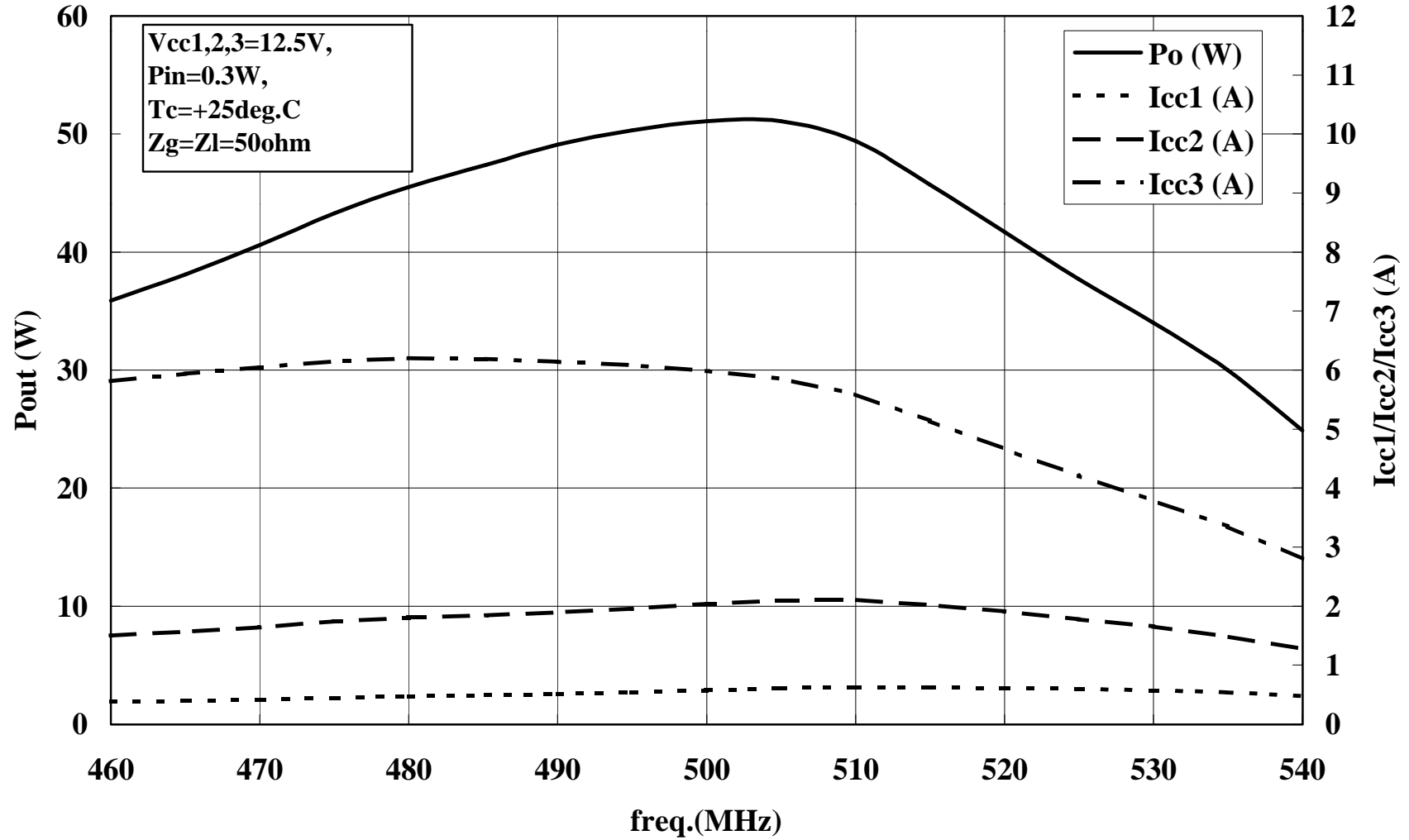
Note. Above parameters are guaranteed independently.

## ELECTRICAL CHARACTERISTICS (T<sub>c</sub> = 25 °C unless otherwise noted)

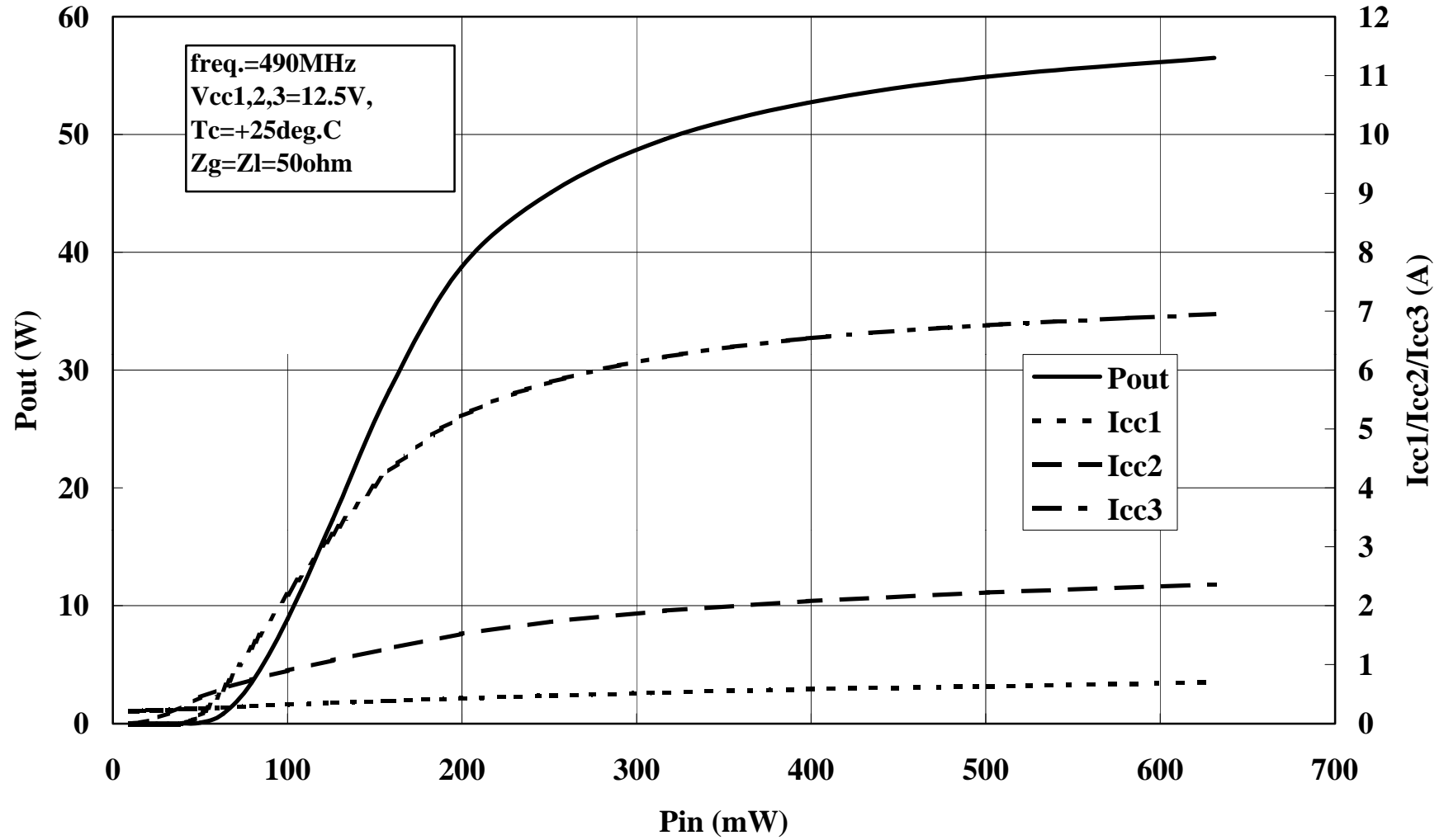
Symbol	Parameter	Test conditions	Limits		Unit
			Min	Max	
f	Frequency range	P <sub>in</sub> = 0.3W V <sub>CC</sub> = 12.5V Z <sub>G</sub> = Z <sub>L</sub> = 50 Ω	490	512	MHz
P <sub>o</sub>	Output power		40		W
η <sub>T</sub>	Total efficiency		40		%
2f <sub>o</sub>	2nd. harmonic			- 30	dBc
3f <sub>o</sub>	3rd. harmonic			- 30	dBc
ρ <sub>in</sub>	Input VSWR			3.5	-
-	Load VSWR tolerance	V <sub>CC</sub> = 15.2V, P <sub>o</sub> = 40W (P <sub>in</sub> : controlled) Load VSWR = 8.8 : 1 (All phase), Z <sub>G</sub> = 50 Ω	No degradation or destroy		-

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

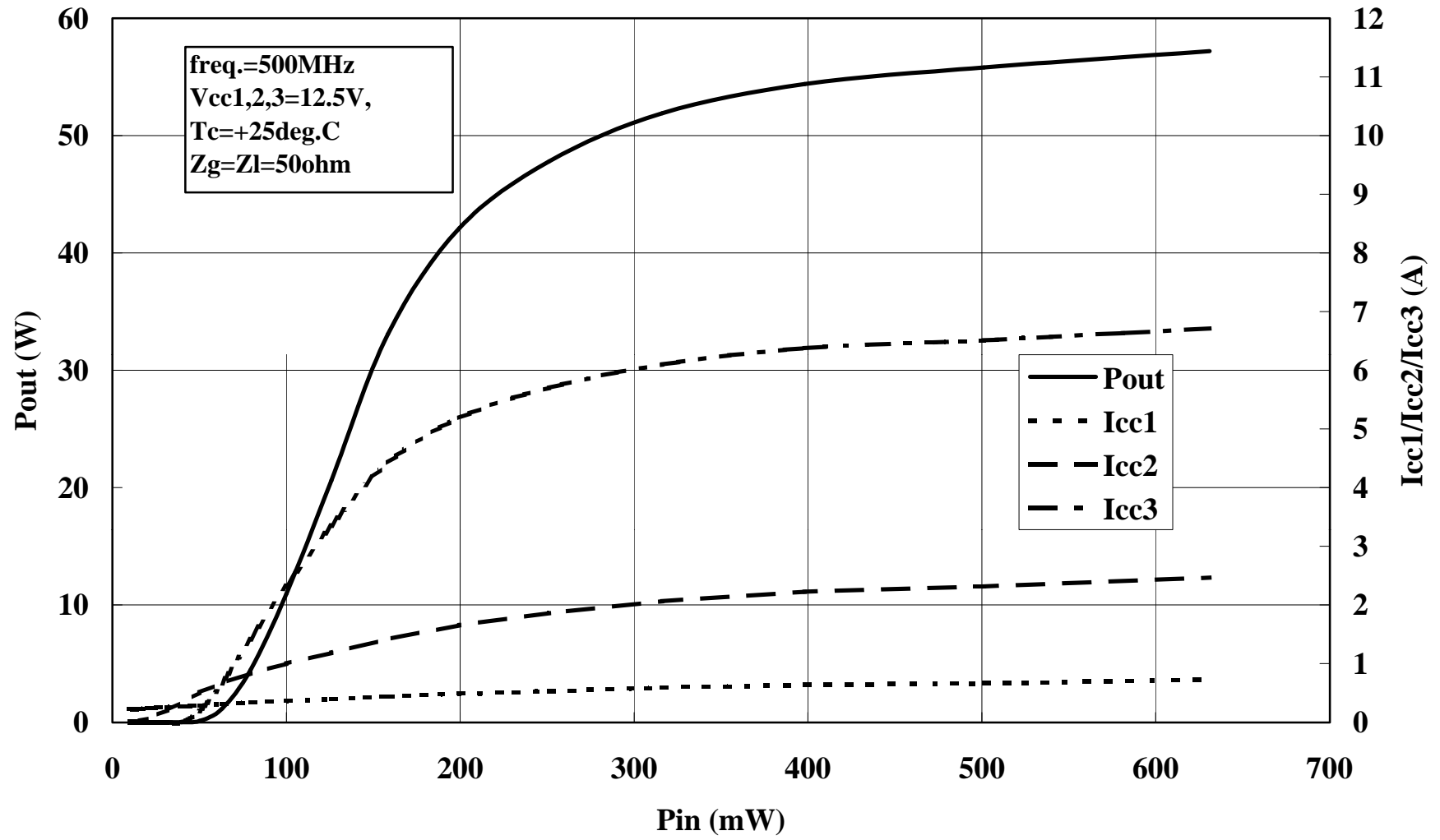
**M57788SH Pout,Icc vs. freq.**



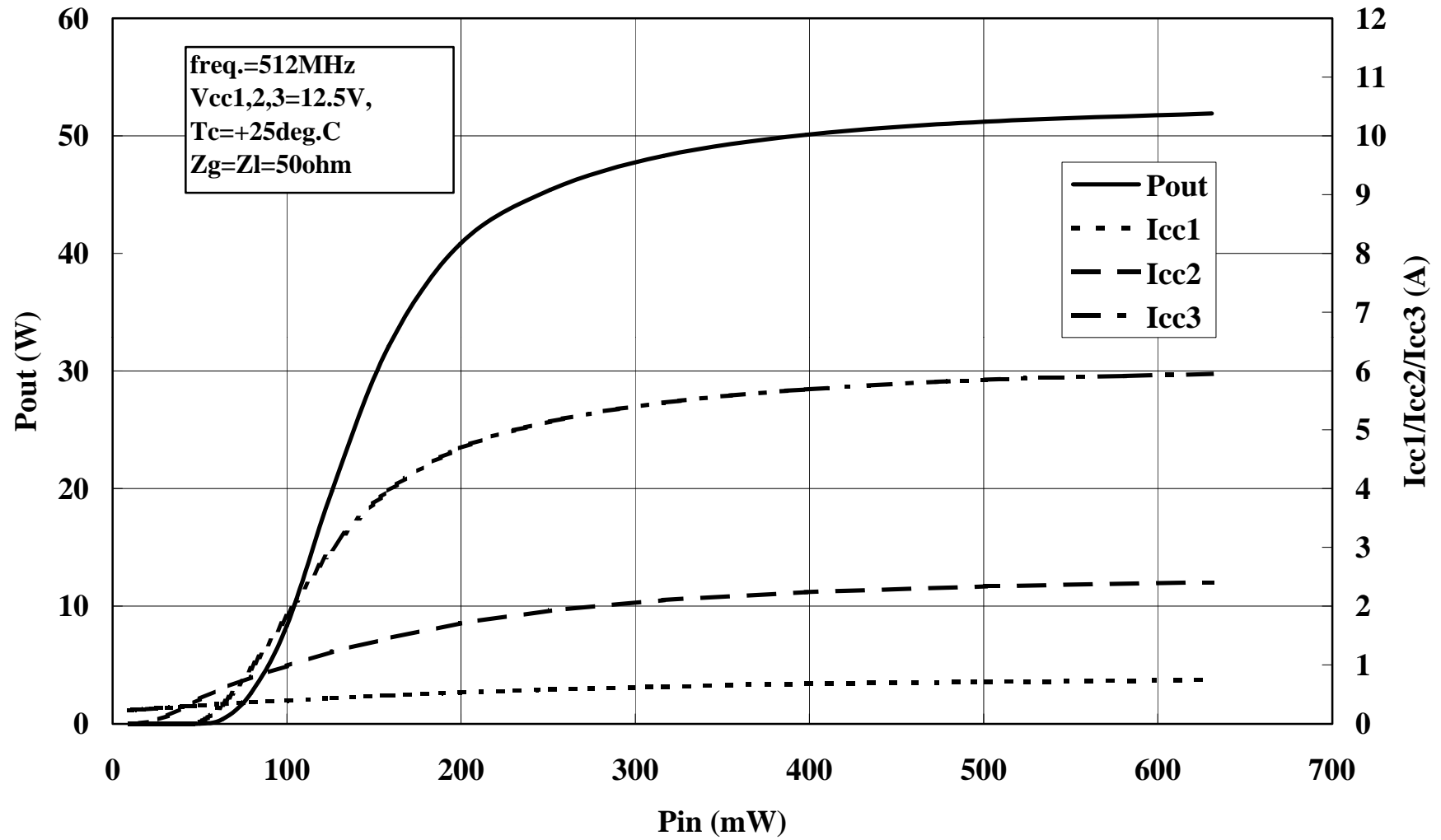
**M57788SH Pout,Icc vs. Pin**



**M57788SH Pout,Icc vs. Pin**

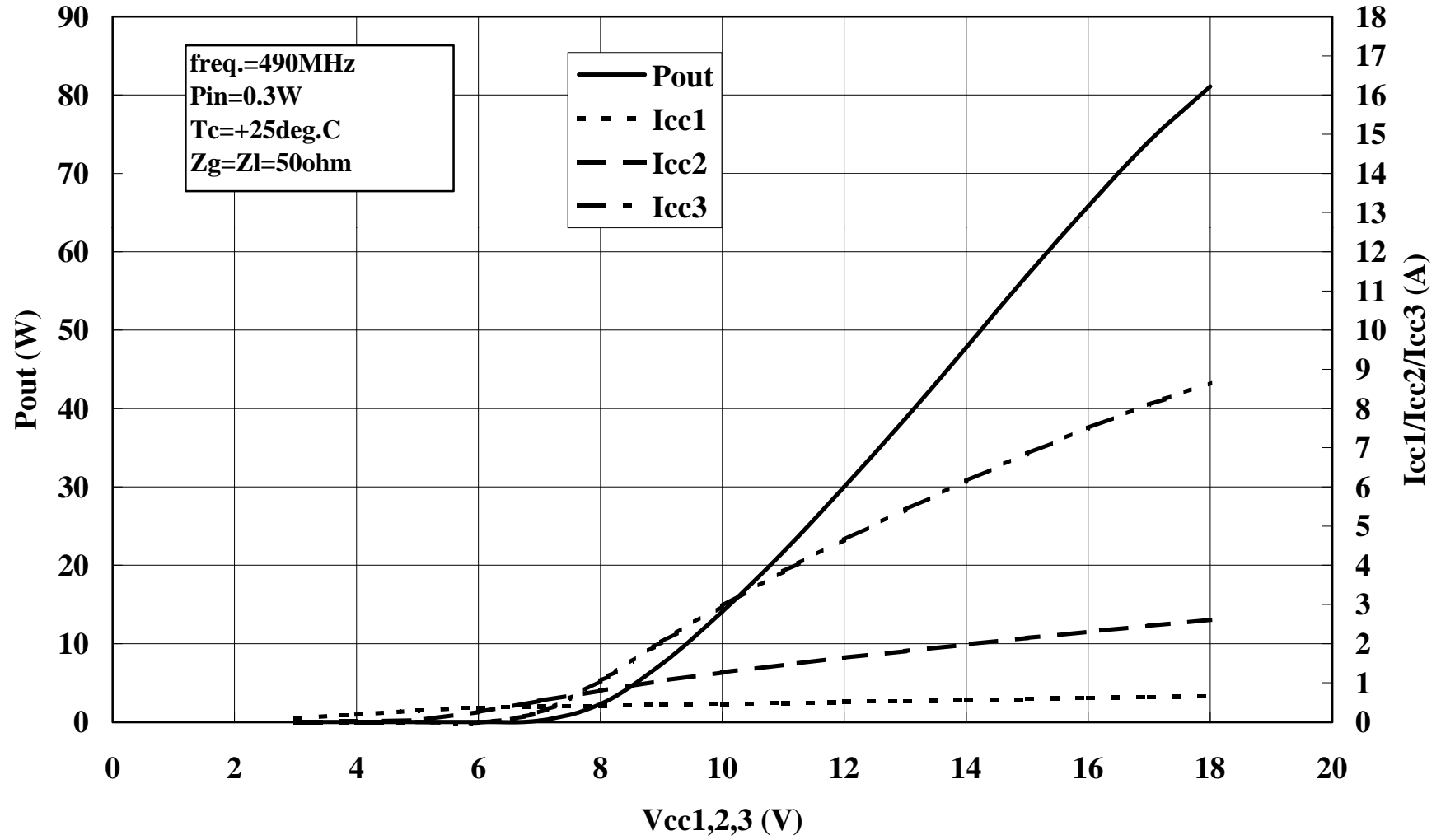


**M57788SH Pout,Icc vs. Pin**

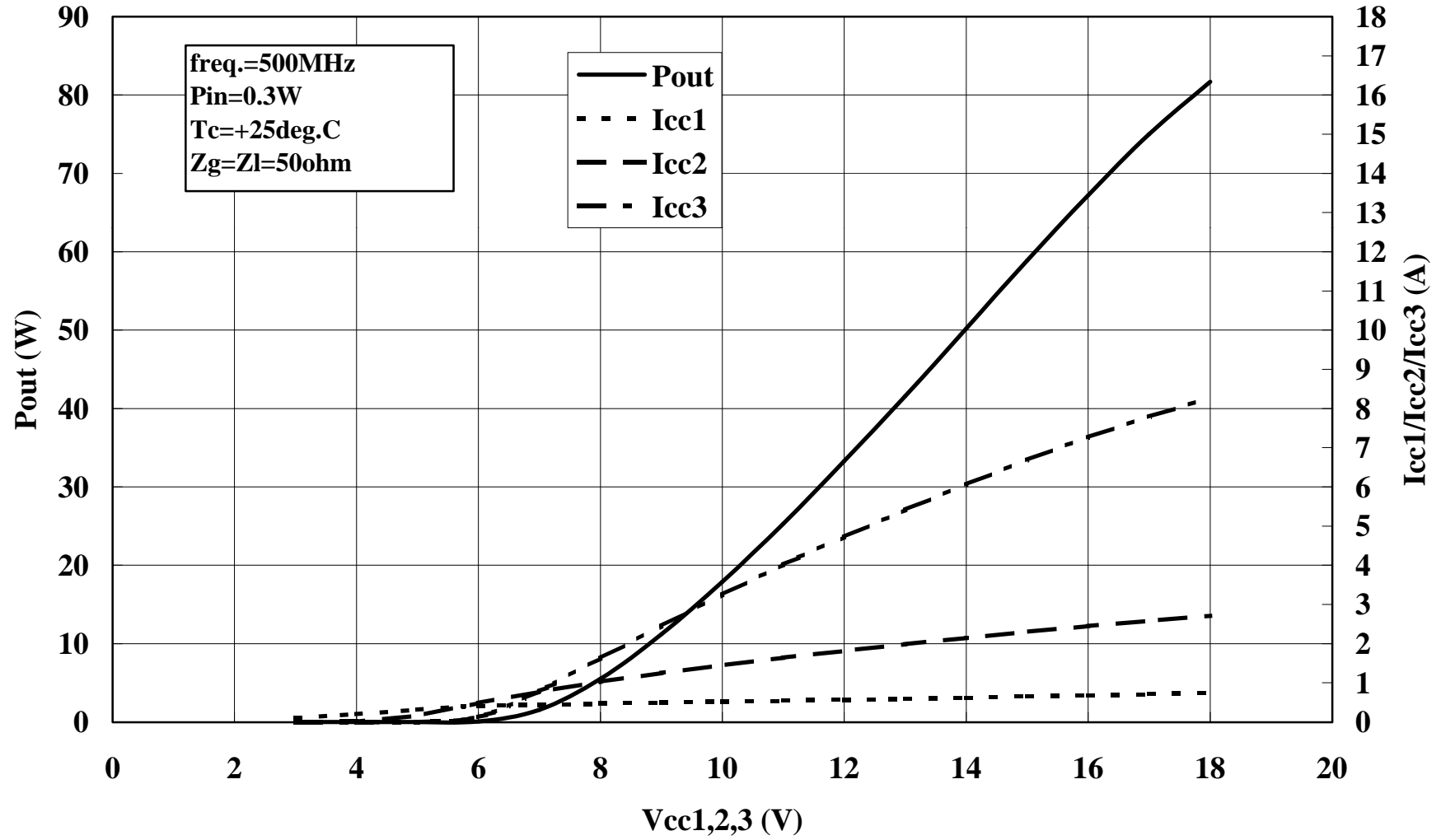


Graph Vc-Po(fL)

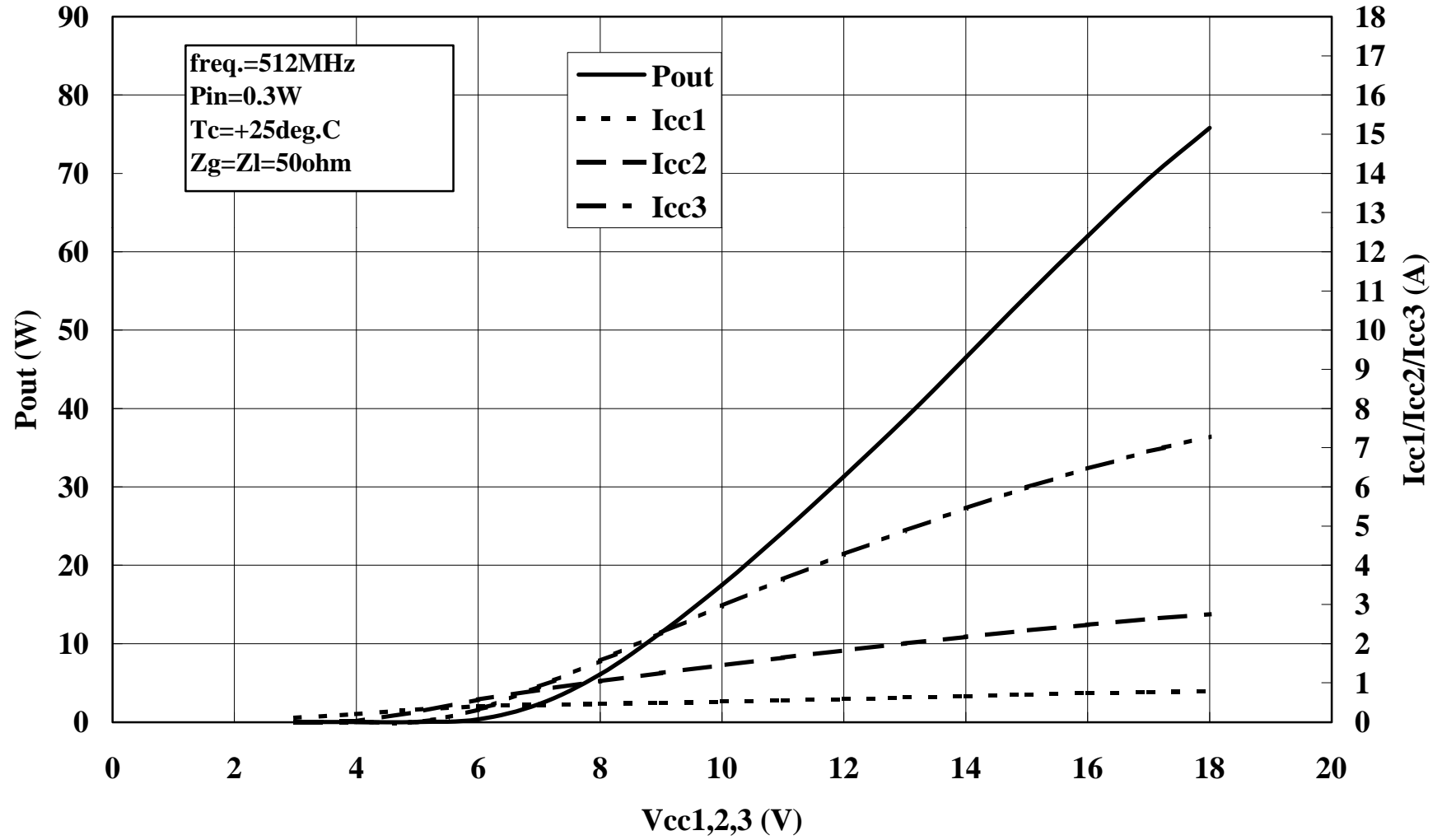
**M57788SH Pout,Icc vs. Vcc**



**M57788SH Pout,Icc vs. Vcc**

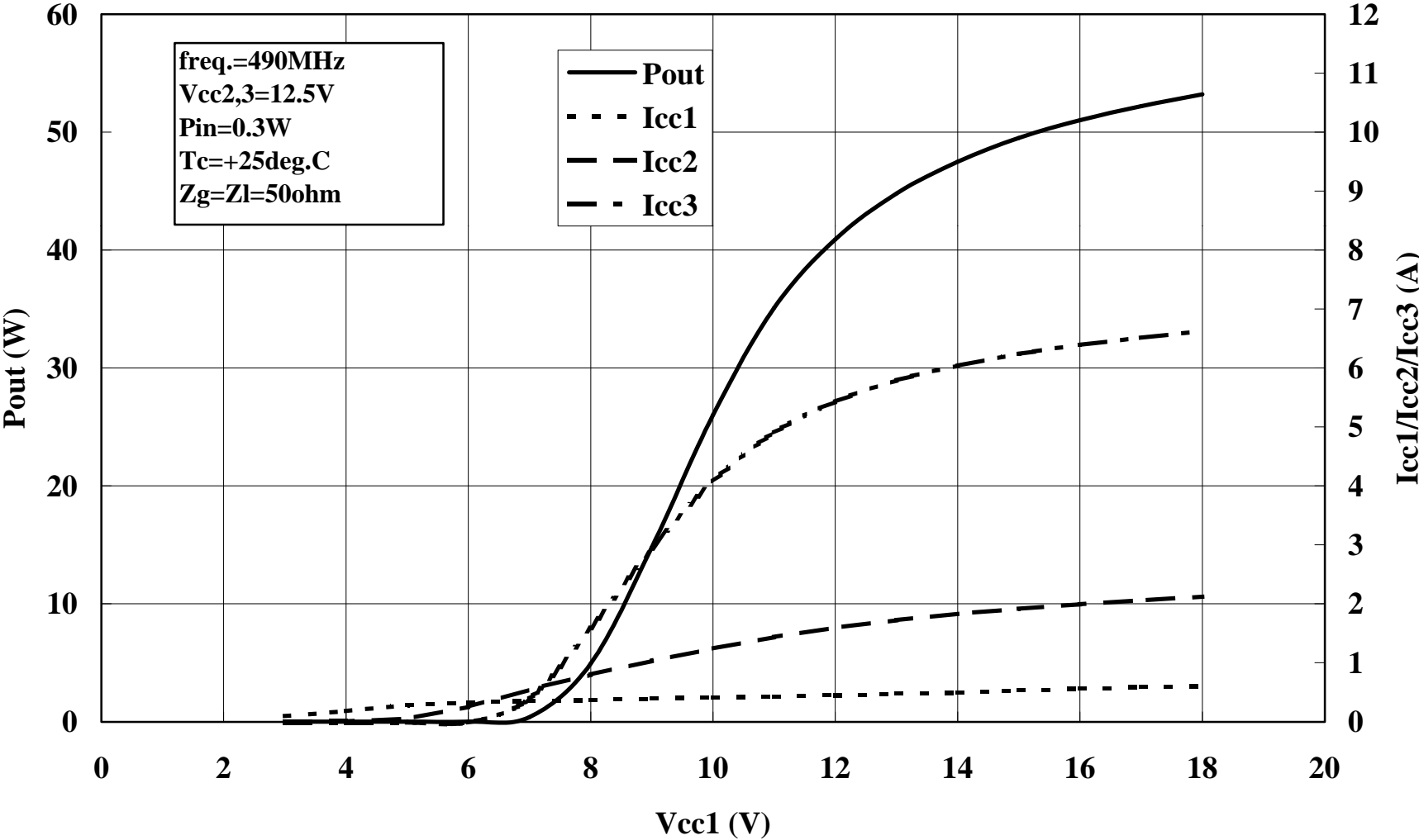


**M57788SH Pout,Icc vs. Vcc**

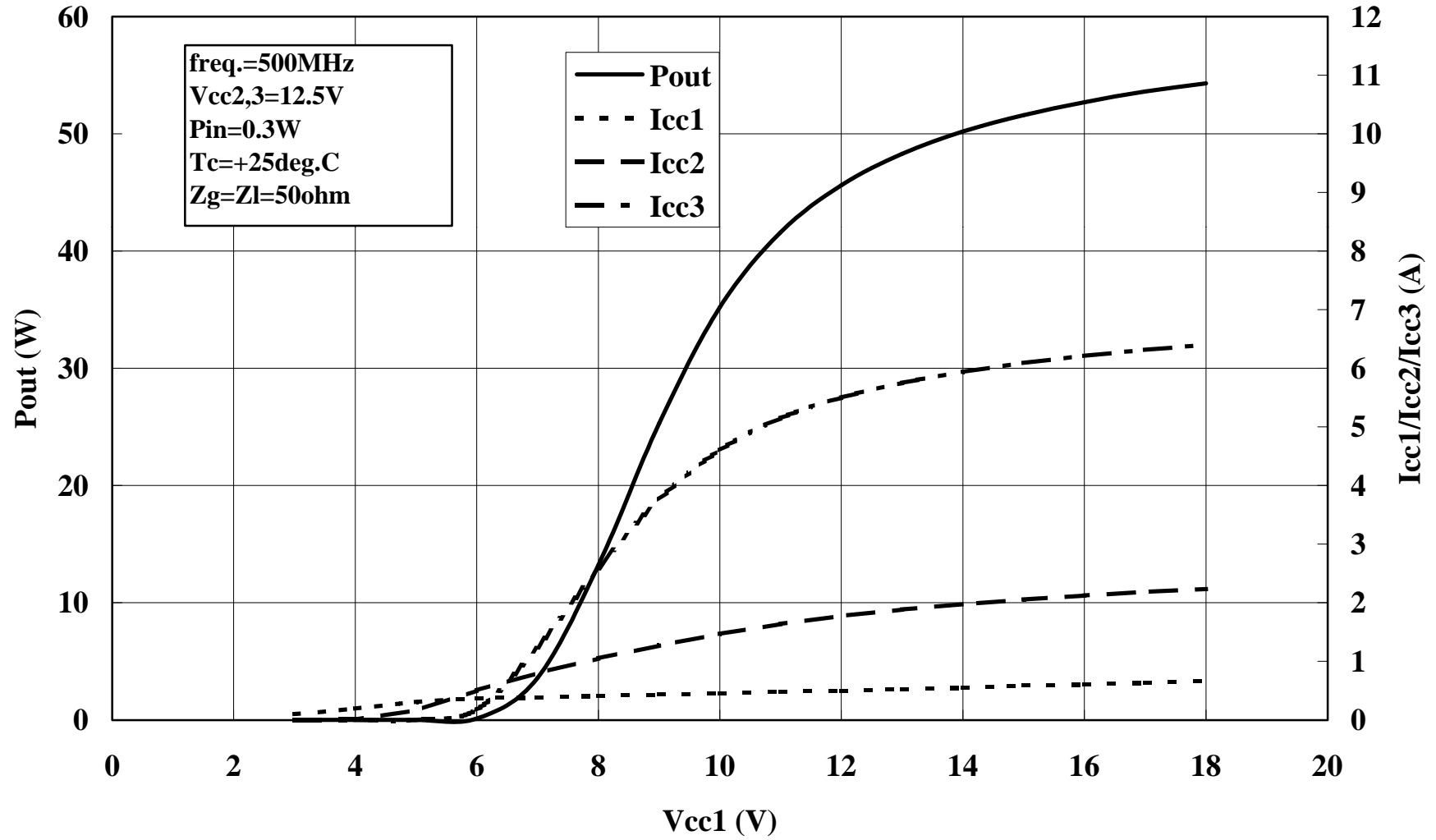




**M57788SH Pout,Icc vs. Vcc1**



**M57788SH Pout,Icc vs. Vcc1**



**M57788SH Pout,Icc vs. Vcc1**

