TOSHIBA

MICROWAVE SEMICONDUCTOR

TECHNICAL DATA

MICROWAVE POWER MMIC AMPLIFIER

TMD1414-1L

PRELIMINARY

FEATURES

- **SUITABLE FOR KU-BAND VSAT**
- **HIGH POWER**

  P1dB=32.0dBm at 14.0GHz to 14.5GHz
- **HIGH GAIN**

  G1dB=27.0dB at 14.0GHz to 14.5GHz

ABSOLUTE MAXIMUM RATINGS (Ta= 25° C)

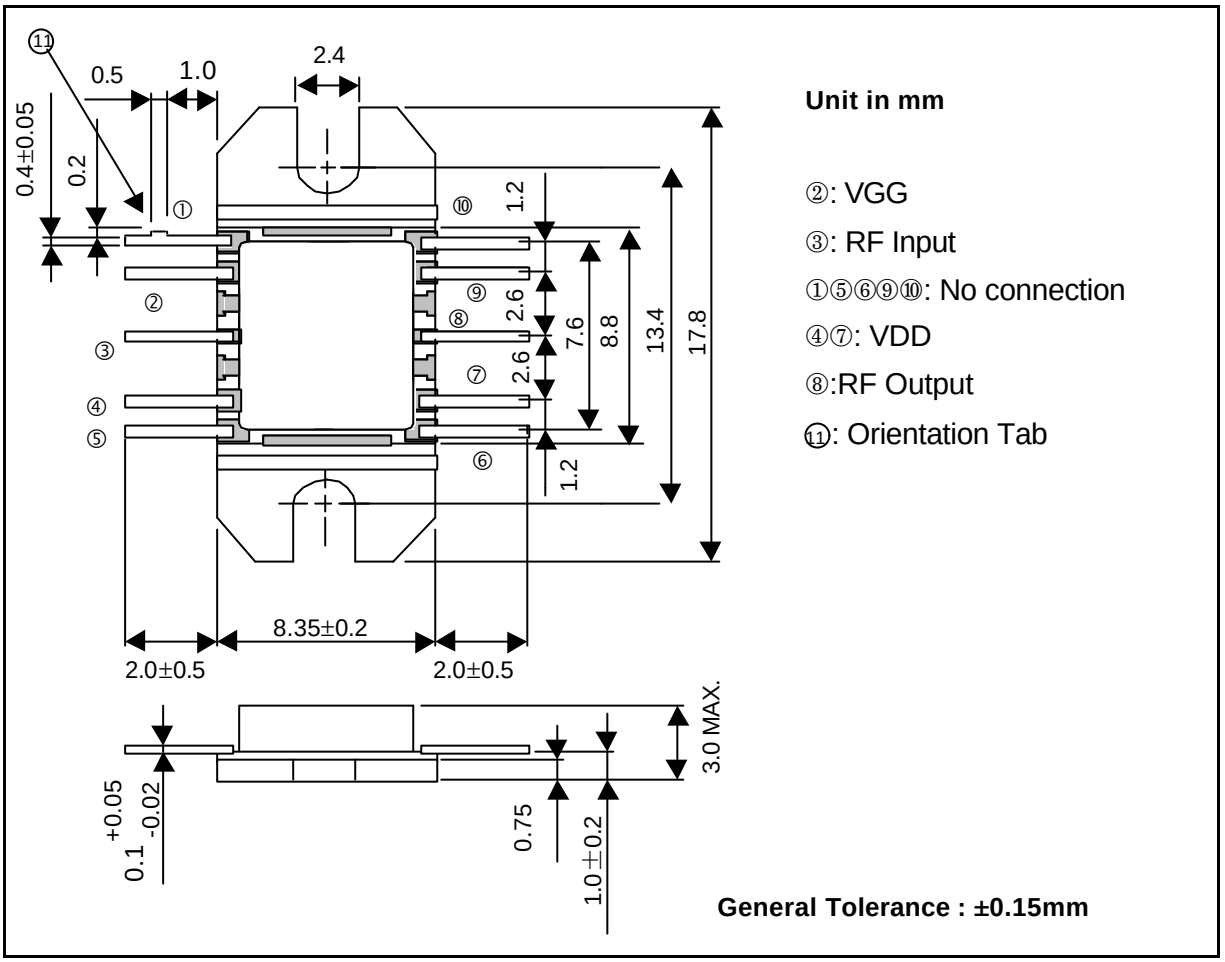
CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain Supply Voltage	V_{DD}	V	10
Gate Supply Voltage	V_{GG}	V	-10
Input Power	Pin	dBm	20
Power Dissipation (Tc= 25 °C)	P_T	W	14
Glange Temperature	Tf	°C	-60 to +100
Storage Temperature	T_{stg}	°C	-65 to +175

RF PERFORMANCE SPECIFICATIONS (Ta= 25° C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Compression Point	P_{1dB}	VDD= 7V VGG=-4.0/-4.5/-5.0V f= 14.0 to 14.5GHz	dBm	31.2	32.0	—
Power Gain at 1dB Compression Point	G_{1dB}		dB	26.0	27.0	—
Drain Current	I_{DD}		A	—	1.00	1.20
3rd Order Intermodulation Distortion	IM3	NOTE	dBc	-28	-29	—

NOTE : Two Tone Test, Po=25.5dBm (Single Carrier Level)

PACKAGE OUTLINE (7-BA04A)



Recommended Bias Congiguration