

TOSHIBA

MICROWAVE POWER MMIC AMPLIFIER

MICROWAVE SEMICONDUCTOR TECHNICAL DATA

TMD1013-1-431

FEATURES

- High Power P_{1dB}=33dBm(TYP.)
- High Power Added Efficiency η_{add}=14%(TYP.)
- High Gain G_{1dB}=25dB(TYP.)
- Operable Frequency : f=10.0-12.0GHz.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

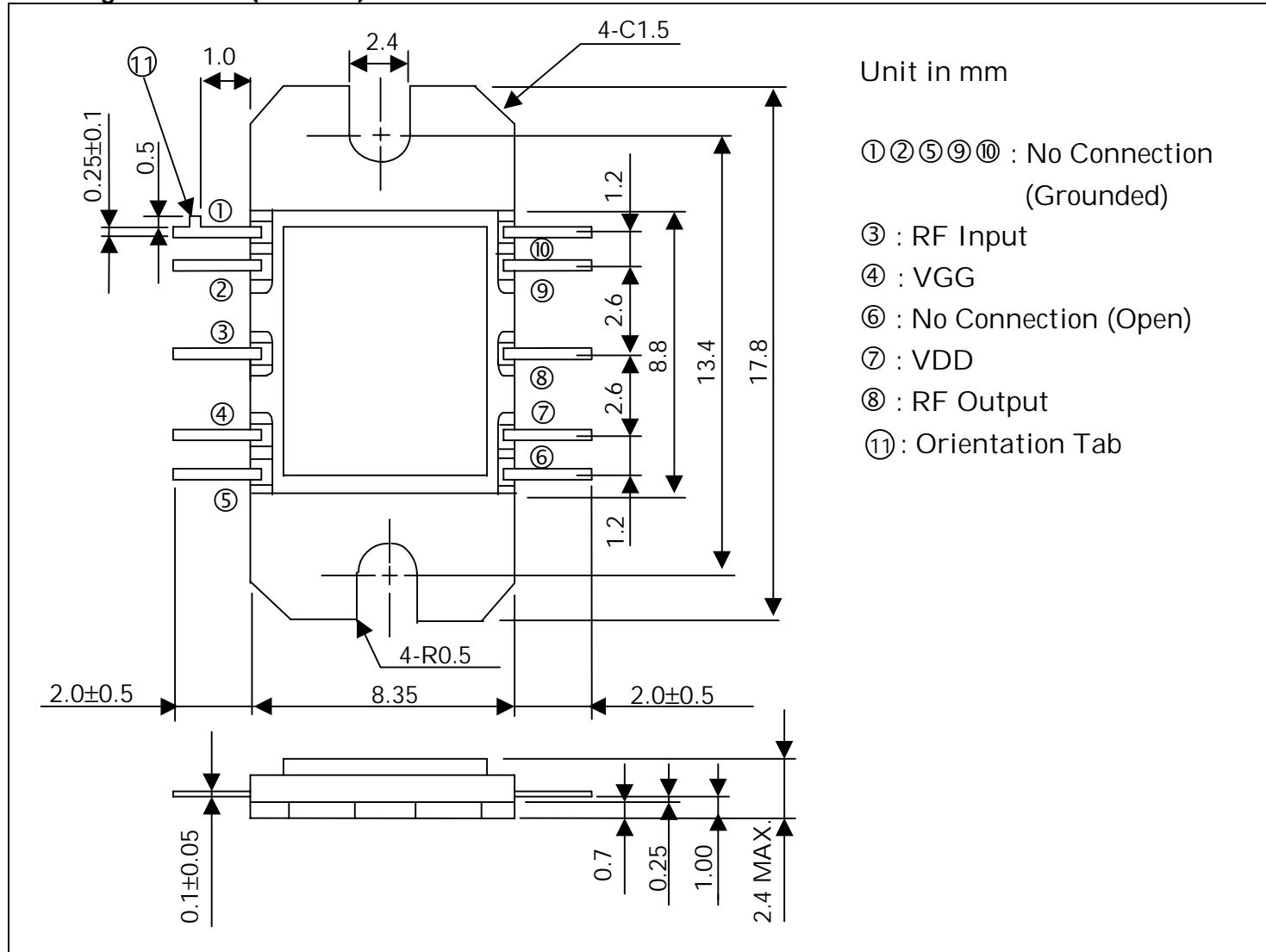
CHARACTERISTICS	SYMBOL	UNIT	RATINGS
DRAIN SUPPLY VOLTAGE	VDD	V	15
GATE SUPPLY VOLTAGE	VGG	V	-10
INPUT POWER	Pin	dB	7
FLANGE TEMPERATURE	T _f	°C	-30 to +80
STORAGE TEMPERATURE	T _{stg}	°C	-65 to +175

RF PERFORMANCE SPECIFICATIONS (T_a=25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Operating Frequency	f	VDD=10V VGG= -5V 2 Tone @ Po=19dBm(SCL)	GHz	10.0	—	12.0
Output Power at 1dB Gain Compression Point	P _{1dB}		dBm	31	33	—
Power Gain at 1dB Gain Compression Point	G _{1dB}		dB	21	25	—
Gain Flatness	ΔG		dB	—	—	2.5
Drain Current	IDD		A	—	1.4	1.8
Power Added Efficiency	η _{add}		%	—	14	—
Third Order Intermodulation Distortion	IM3		dBc	-42	-45	—
VSWR _{in} (small signal)	VSWR _{in}		—	—	2.0	3.0

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Package Outline (2-9E1D)



Recommended Bias Configuration

