TOSHIBA

MICROWAVE SEMICONDUCTOR

TECHNICAL DATA

MICROWAVE POWER MMIC AMPLIFIER

TMD1414-2C

FEATURES

- **HIGH POWER**
  P1dB=34.5dBm at 13.75GHz to 14.5GHz
- **HIGH GAIN**
  G1dB=26.0dB at 13.75GHz to 14.5GHz
- **BROAD BAND INTERNALLY MATCHED**
- **HERMETICALLY SEALED PACKAGE**

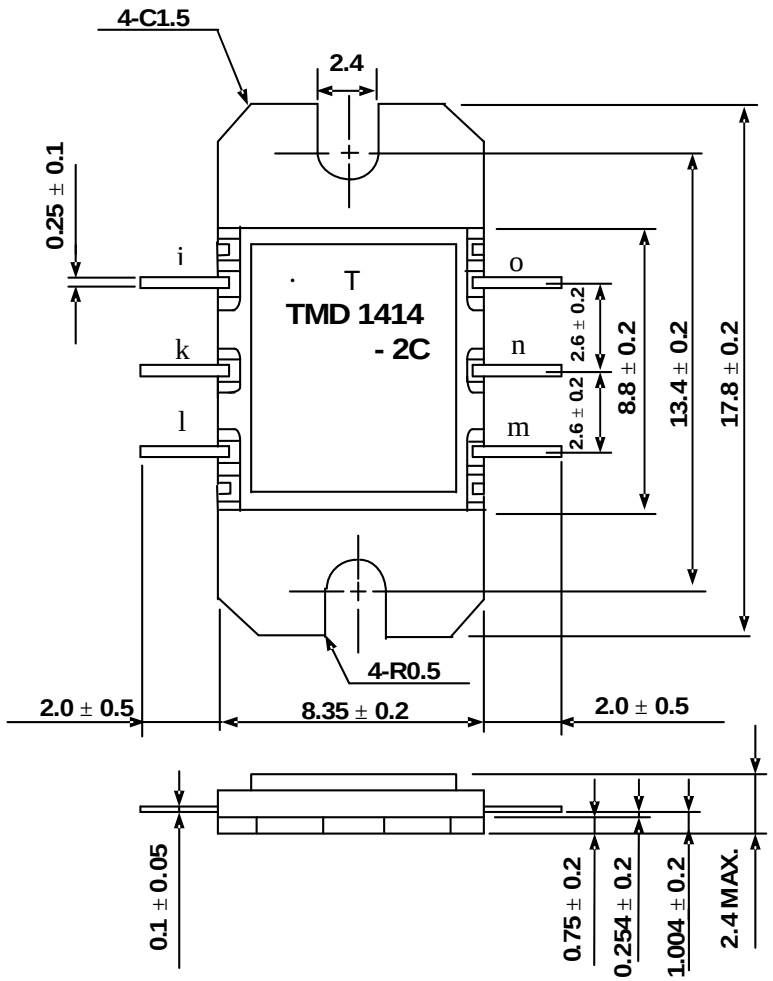
ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain Supply Voltage	VDD	V	10
Gate Supply Voltage	VGG	V	-10
Input Power	Pin	dBm	20
Flange Temperature	Tf	°C	-40 ~ +90
Storage Temperature	Tstg	°C	-65 ~ +175

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Operating Frequency	f		GHz	13.75	—	14.5
Output Power at 1dB Gain Compression Point	P1dB	VDD=7V VGG=-5V	dBm	32.0	34.5	—
1dB Gain Compression Point	G1dB		dB	21.0	26.0	—
Gain Flatness	ΔG		dB	—	—	±1.0
Drain Current	IDD		A	—	1.4	1.8
Power Added Efficiency	*h*add		%	—	29	—

PACKAGE OUTLINE (7-BA15A)



Unit in mm

j :VGG
k : RF Input
l m: VDD
n : RF Output
o : Vdet

Two VDD pins do not have to be biased at the same time, but at least one of the pins has to be biased.
In case only one pin is biased, The Other pin has to be opened.

Recommended Bias Configuration