TOSHIBA

MICROWAVE SEMICONDUCTOR

TECHNICAL DATA

MICROWAVE POWER MMIC AMPLIFIER

TMD0305-2

FEATURES

- **HIGH POWER**
  P1dB=33.0dBm at 3.4GHz to 5.1GHz
- **HIGH GAIN**
  G1dB=22.0dB at 3.4GHz to 5.1GHz
- **BROAD BAND INTERNALLY MATCHED**
- **HERMETICALLY SEALED PACKAGE**

ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

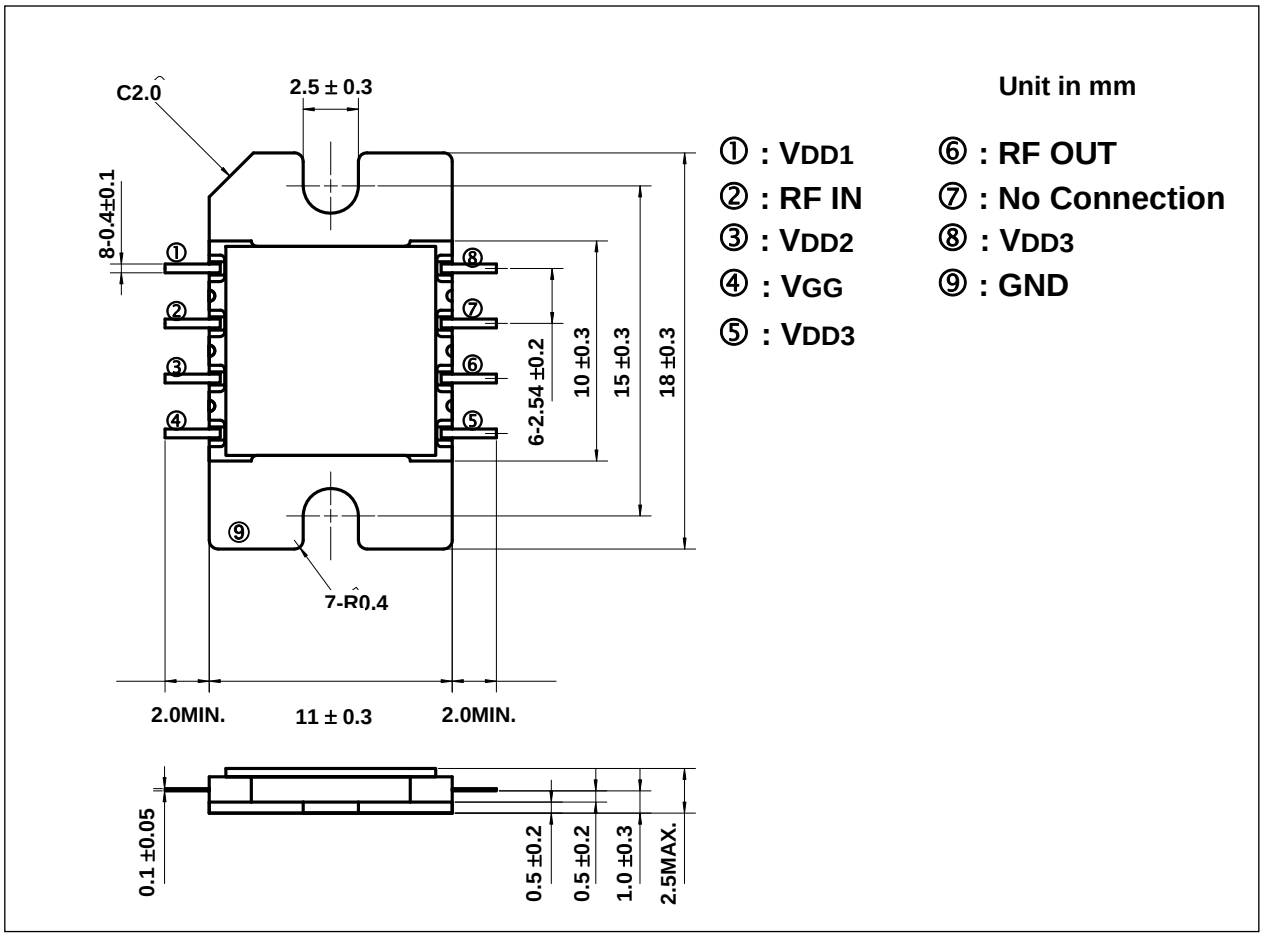
CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain Supply Voltage	V_{DD}	V	15
Gate Supply Voltage	V_{GG}	V	-10
Input Power	P_{in}	dBm	25
Flange Temperature	Tf	°C	-30 ~ +80
Storage Temperature	Tstg	°C	-65 ~ +175

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

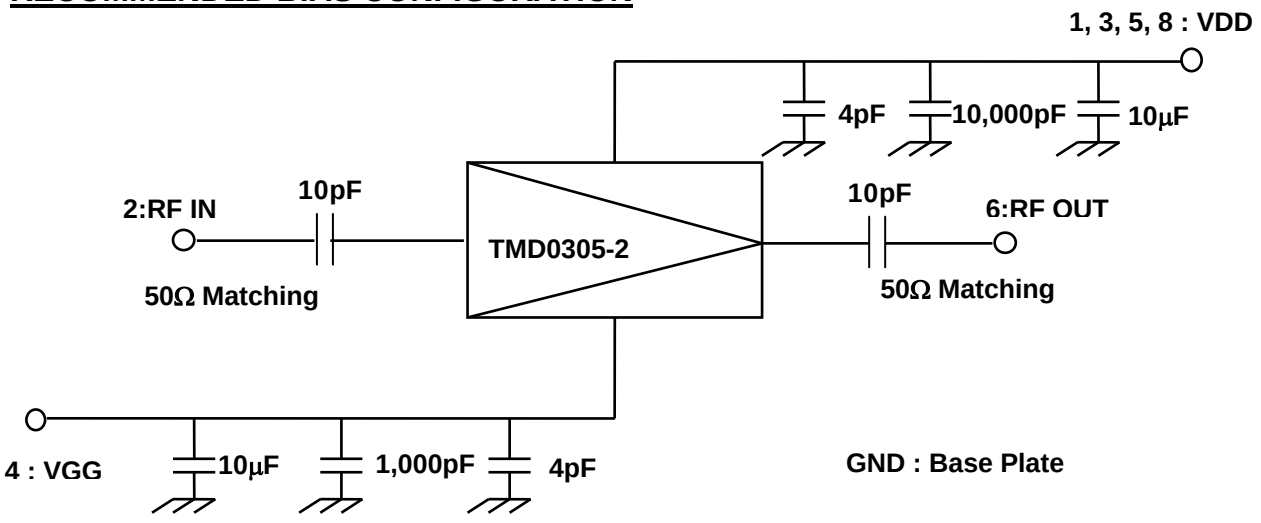
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P_{1dB}	VDD1=VDD2=VDD3 = 10V VGG= -5V f = 3.4 – 5.1GHz	dBm	32.0	33.0	—
Power Gain at 1dB Gain Compression Point	G_{1dB}		dB	20.0	22.0	—
Drain Current*	I_{DD}		A	—	1.6	1.9
Input VSWR	VSWRin		—	—	—	3.0

* $I_{DD} = I_{DD1} + I_{DD2} + I_{DD3}$

PACKAGE OUTLINE (2-11E1A)



RECOMMENDED BIAS CONFIGURATION



HANDLING PRECAUTIONS FOR PACKAGE MODEL

Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C. Flanges of devices should be attached using screws and washers. Recommended torque is 0.18-0.20 N·m.