

# MICROWAVE POWER MMIC AMPLIFIER

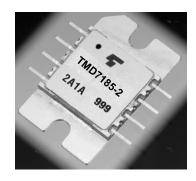
MICROWAVE SEMICONDUCTOR TECHNICAL DATA

#### **FEATURES**

- •BROAD BAND INTERNALLY MATCHED •HIGH POWER
  - P1dB= 33.0dBm at 7.1GHz to 8.5GHz

#### ·HIGH GAIN

- G1dB= 28.0dB at 7.1GHz to 8.5GHz
- **·HERMETICALLY SEALED PACKAGE**



TMD7185-2

### **RF PERFORMANCE SPECIFICATIONS** $(Ta=25^{\circ}C)$

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P1dB	VDD= 10V VGG= -5V f= 7.1 to 8.5GHz	dBm	32.0	33.0	
Power Gain at 1dB Gain Compression Point	G1dB		dB	27.0	28.0	
Drain Current	IDD		А		1.4	1.7
Input VSWR	VSWRin			_	_	3.0
3rd Order intermodulation Distortion	IM3	TwoTone Test Po= 22.0dBm, f= ∆5MHz (Single Carrier Level)	dBc	-42	-45	

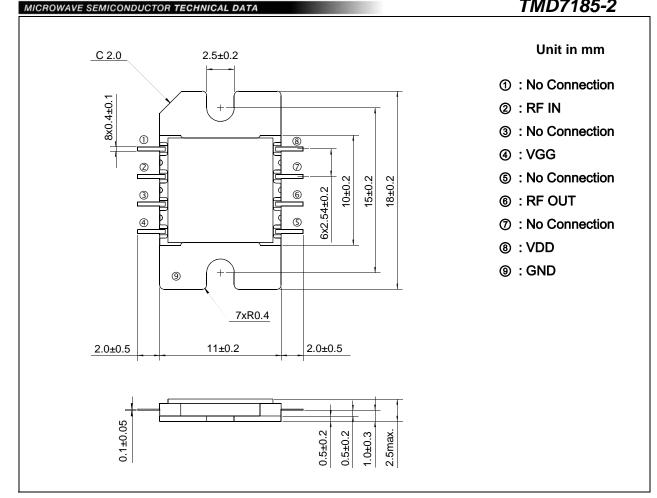
### ABSOLUTE MAXIMUMRATINGS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	UNIT	MAX.
Drain Supply Voltage	VDD	V	15
Gate Supply Voltage	VGG	V	-10
Input Power	Pin	dBm	10
Flange Temperature	Tf	°C	-30 to +80
Storage Temperature	Tstg	°C	-65 to +175

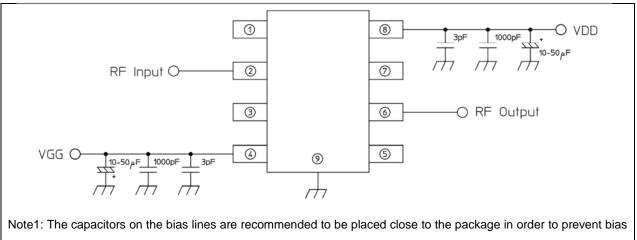
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### PACKAGE OUTLINE (2-11E1B)

# TOSHIBA



### **RECOMMENDED BIAS CONFIGURATION**



oscillation.

### HANDLING PRECAUTIONS FOR PACKAGE MODEL

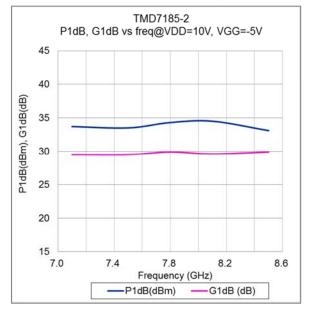
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C or 3 seconds at 350°C. Flanges of devices should be attached using screws and washers. Recommended torque is 0.18-0.20 N·m.

## TOSHIBA

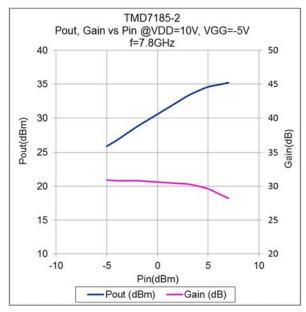
### TYPCAL RF PERFORMANCE

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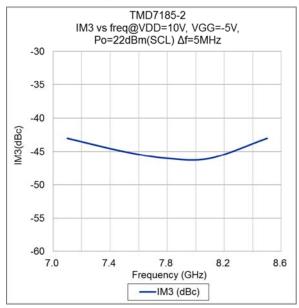
#### P1dB, G1dB vs. Freguency



#### **Output Power, Gain vs. Input Power**



#### IM3 vs. Frequency



#### IM3 vs. Output Power

