

MICROWAVE SEMICONDUCTOR TECHNICAL DATA

TMD1415-2B

PRELIMINARY

FEATURES

- High Power $P_{1dB}=34.0\text{dBm(TYP.)}$
- High Gain $G_{1dB}=25\text{dB(TYP.)}$
- High Power Added Efficiency $\eta_{add}=25\%(\text{TYP.})$
- Broadband Operation $f=14.4\text{--}15.4\text{GHz.}$

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

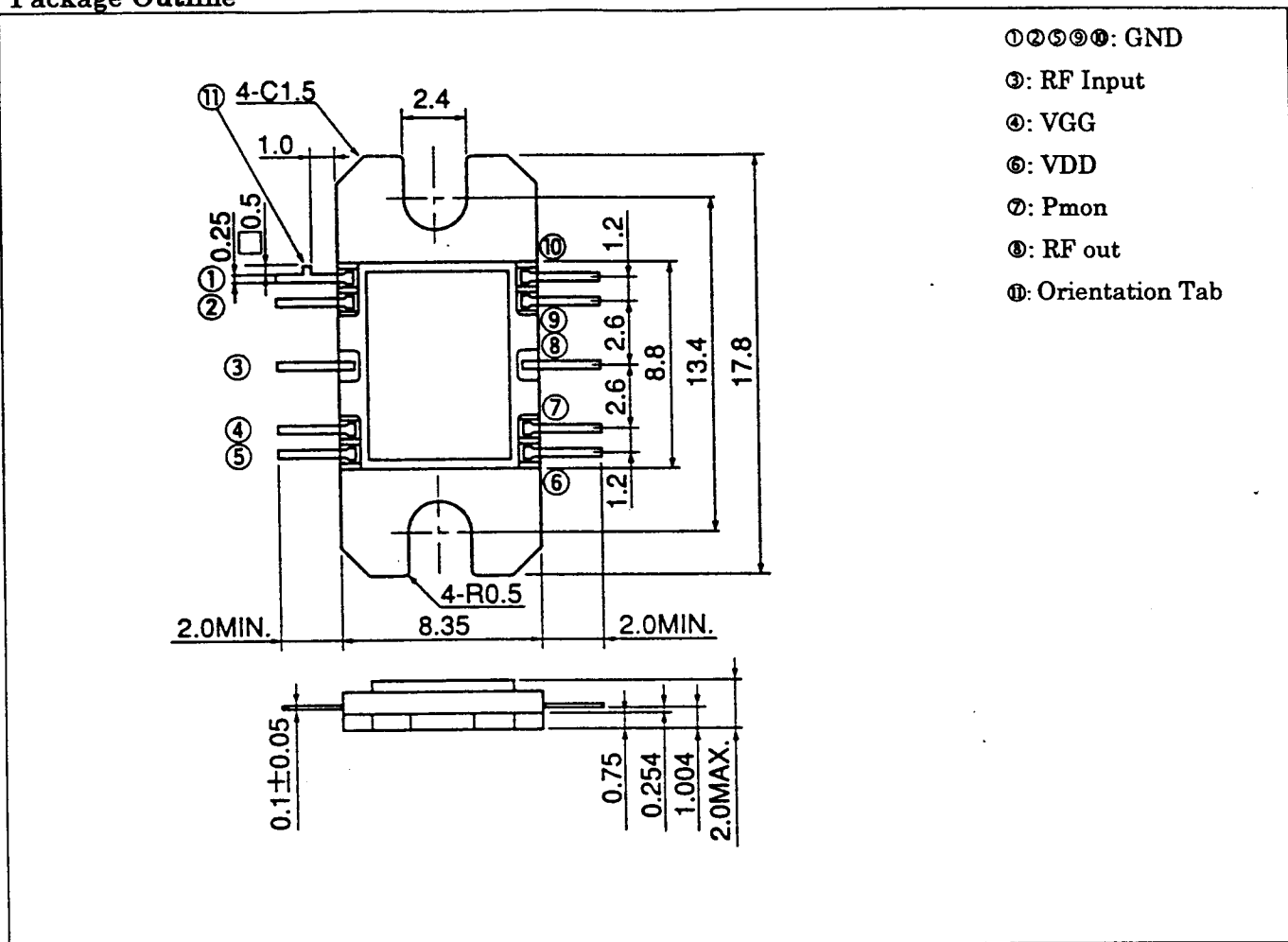
CHARACTERISTICS	SYMBOL	UNIT	RATINGS
DRAIN SUPPLY VOLTAGE	VDD	V	10
GATE SUPPLY VOLTAGE	VGG	V	-10
INPUT POWER	Pin	dBm	10
FLANGE TEMPERATURE	Tf	°C	-30~+80
STORAGE TEMPERATURE	Tstg	°C	-65~+175

RF PERFORMANCE SPECIFICATIONS ($T_a=25^\circ\text{C}$)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Operating Frequency	f		GHz	14.4	—	15.4
Output Power at 1dB Gain Compression Point	P1dB	VDD= 7V VGG= -5V	dBm	32.0	34.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	21.0	25.0	—
Gain Flatness	ΔG		dB	—	—	± 1.25
Drain Current	IDD		A	—	1.4	1.8
Power Added Efficiency	η_{add}		%	—	25	—
Third Order Intercept Point	IP3		dBm	—	40	—
VSWRin (small signal)	VSWRin		—	—	2.0 : 1	3.0 : 1
VSWRout (small signal)	VSWRout		—	—	2.0 : 1	3.0 : 1
Detector Output Voltage	Vdet	@Po=33dBm	V	—	3.0	—

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Package Outline



Recommended Bias Configuration

