

FEATURES

- **HIGH POWER**
P1dB=34.0dBm (TYP.)
- **HIGH POWER ADDED EFFICIENCY**
 η_{add} =21% (TYP.)
- **HIGH GAIN**
G1dB=28.0dB (TYP.)
- **BROADBAND OPERATION**
f=5.8-7.2GHz

ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

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

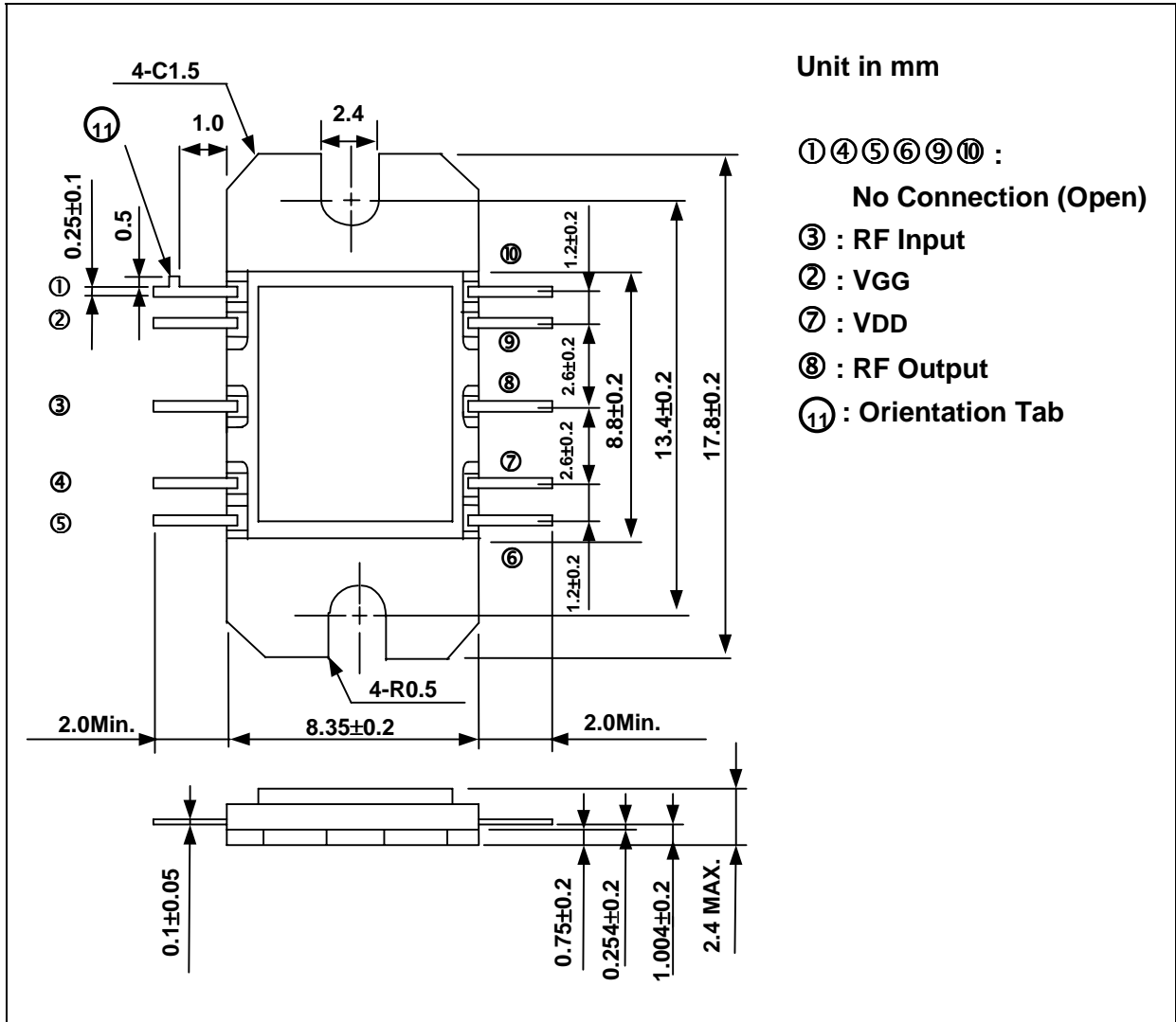
RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Operating Frequency	f		GHz	5.8	—	7.2
Output Power at 1dB Gain Compression Point	P1dB	VDD= 10V VGG= -5V	dBm	32.0	34.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	25.0	28.0	—
Gain Flatness	ΔG		dB	—	—	± 2.0
Drain Current	IDD		A	—	1.2	1.6
Power Added Efficiency	η_{add}		%	—	21	—
Input VSWR (small signal)	VSWRi		—	—	2.0:1	3.0:1

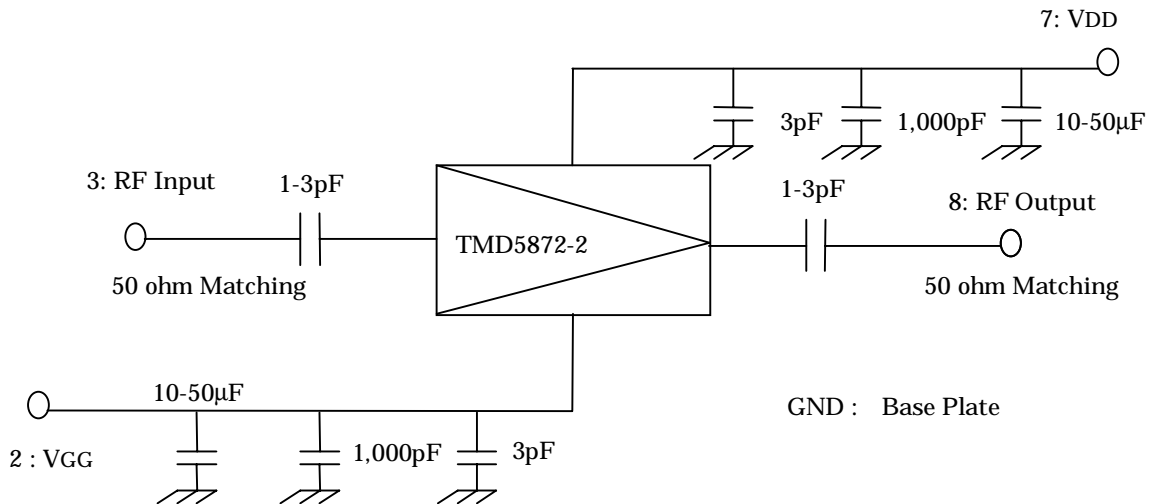
◆The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA for any infringements of patents or other rights of the third parties which may results from its use. No license is granted by implication or otherwise under any patent or patent rights of TOSHIBA or others.

The information contained herein is subject to change without prior notice. It is therefor advisable to contact TOSHIBA before proceeding with design of equipment incorporating this product.

PACKAGE OUTLINE (2-9E1F)



Recommended Bias Configuration



S-Parameters of TMD5872-2

VDD= 10V, VGG= -5V

Freq. (GHz)	S11		S21		S12		S22	
	MAG	ANG	MAG	ANG	MAG	ANG	MAG	ANG
5.6	0.33	-60	38.4	-49	0.0005	-46	0.17	-93
5.7	0.24	-64	43.4	-103	0.0005	-40	0.10	-112
5.8	0.15	-56	45.6	-151	0.0007	-42	0.06	-161
5.9	0.13	-23	46.1	163	0.0003	-79	0.07	132
6.0	0.18	-6	45.6	122	0.0004	-80	0.10	100
6.1	0.23	-8	44.6	83	0.0004	-68	0.13	80
6.2	0.26	-15	43.2	46	0.0004	-80	0.13	67
6.3	0.26	-22	41.6	10	0.0003	-101	0.13	59
6.4	0.25	-29	39.7	-23	0.0002	-107	0.13	56
6.5	0.24	-34	37.9	-55	0.0001	-138	0.13	58
6.6	0.22	-37	36.2	-86	0.0000	-96	0.14	61
6.7	0.21	-39	35.1	-117	0.0004	-165	0.15	61
6.8	0.20	-43	34.8	-146	0.0005	-166	0.17	57
6.9	0.20	-49	35.1	-177	0.0003	171	0.19	48
7.0	0.20	-57	36.1	151	0.0005	153	0.20	35
7.1	0.19	-73	37.6	117	0.0010	158	0.21	18
7.2	0.19	-96	38.4	81	0.0006	153	0.20	-2
7.3	0.19	-127	37.6	41	0.0010	129	0.17	-28
7.4	0.21	-159	34.4	1	0.0008	80	0.12	-63