查询TPM2626-14供应商

捷多邦，专业PCB打样工厂，24小时加急出货

TOSHIBA

MICROWAVE SEMICONDUCTOR

TECHNICAL DATA

MICROWAVE POWER GaAs FET

TPM2626-14

FEATURES :

- HIGH POWER
  P_{1dB} = 42.0 dBm at 2.6 GHz
- HIGH GAIN
  G_{1dB} = 12.0 dB at 2.6 GHz
- PARTIALLY MATCHED TYPE
- HERMETICALLY SEALED PACKAGE

RF PERFORMANCE SPECIFICATIONS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Compression Point	P_{1dB}	V_{DS} = 10 V f = 2.6 GHz	dBm	41.0	42.0	–
Power Gain at 1dB Compression Point	G_{1dB}		dB	11.0	12.0	–
Drain Current	I_{DS}		A	–	4.0	5.0
Power Added Efficiency	η_{add}		%	–	37	–
Channel-Temperature Rise	ΔTch	NOTE 1	°C	–	–	80

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	V_{DS} = 3 V I_{DS} = 3.5 A	mS	–	3200	–
Pinch-off Voltage	V_{GSoff}	V_{DS} = 3 V I_{DS} = 70 mA	V	–1.0	–3.0	–4.0
Saturated Drain Current	I_{DSS}	V_{DS} = 3 V V_{GS} = 0 V	A	–	10	13
Gate-Source Breakdown Voltage	V_{GSO}	I_{GS} = –210 μA	V	–5	–	–
Thermal Resistance	$R_{th\,(c-c)}$	Channel to Case	°C/W	–	1.9	2.5

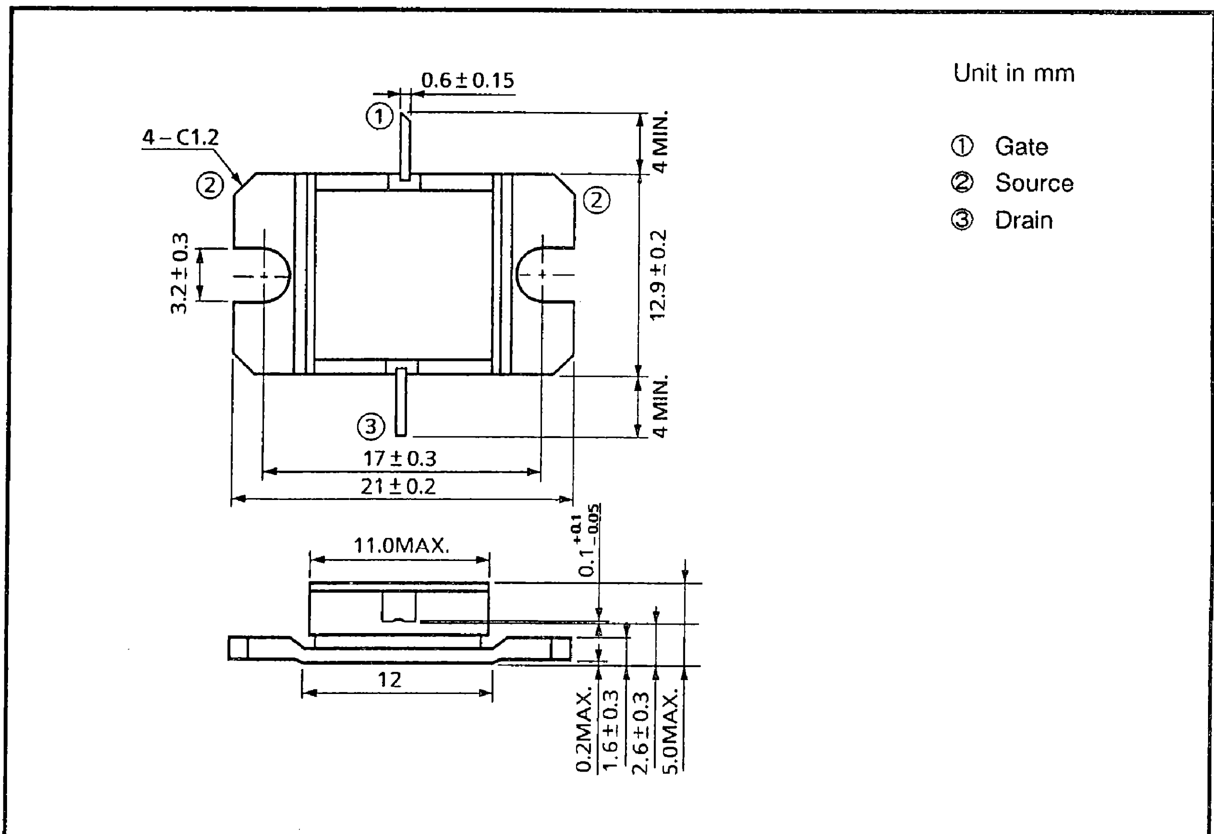
NOTE 1 : $\Delta Tch = (V_{DS} \times I_{DS} + Pin - P_{1dB}) \times R_{th\,(c-c)}$

★ 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 result 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 may be changed without prior notice. It is therefore advisable to contact TOSHIBA before proceeding with the design of equipment incorporating this product.

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V_{DS}	V	15
Gate-Source Voltage	V_{GS}	V	−5
Drain Current	I_{DS}	A	13
Total Power Dissipation (T_C = 25°C)	P_T	W	60
Channel Temperature	T_{ch}	°C	175
Storage Temperature	T_{stg}	°C	−65~175

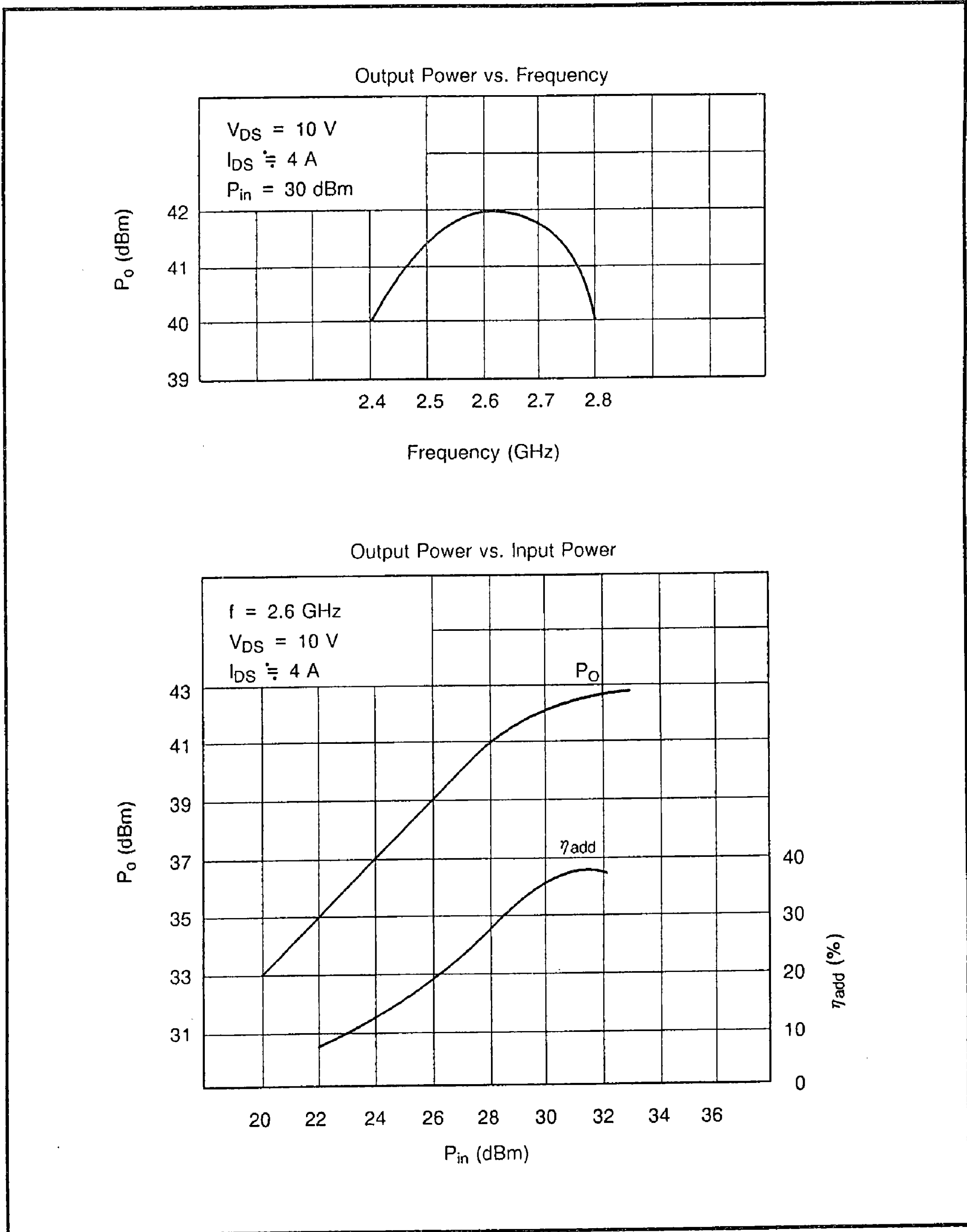
PACKAGE OUTLINE (2-11D1B)



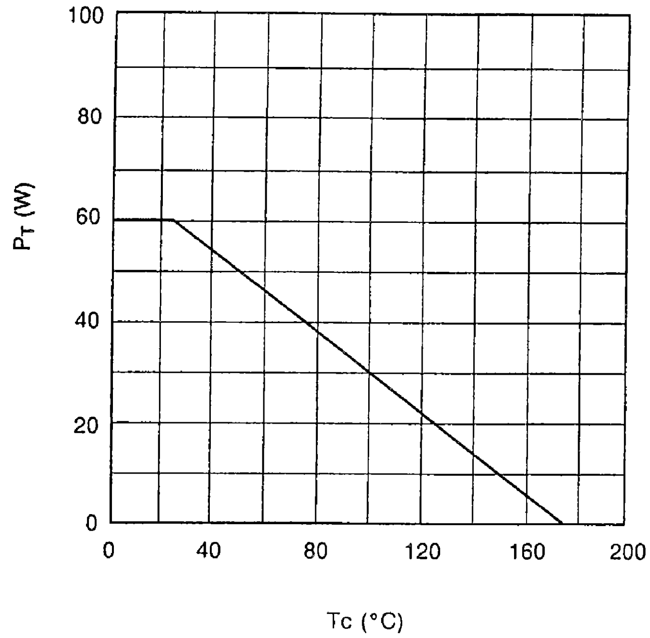
HANDLING PRECAUTIONS FOR PACKAGED TYPE

Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

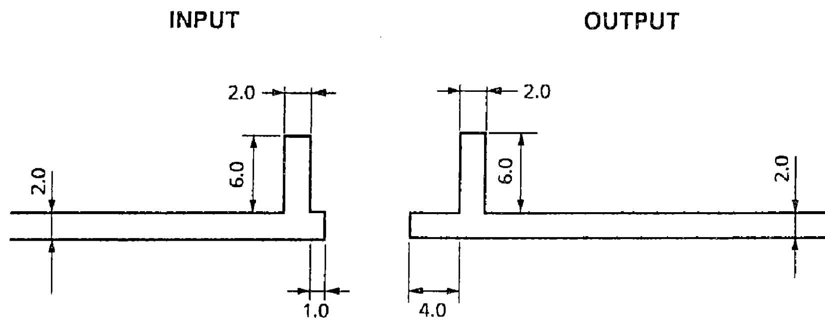
RF PERFORMANCES



POWER DISSIPATION VS. CASE TEMPERATURE



DRAWING OF MATCHING NETWORK

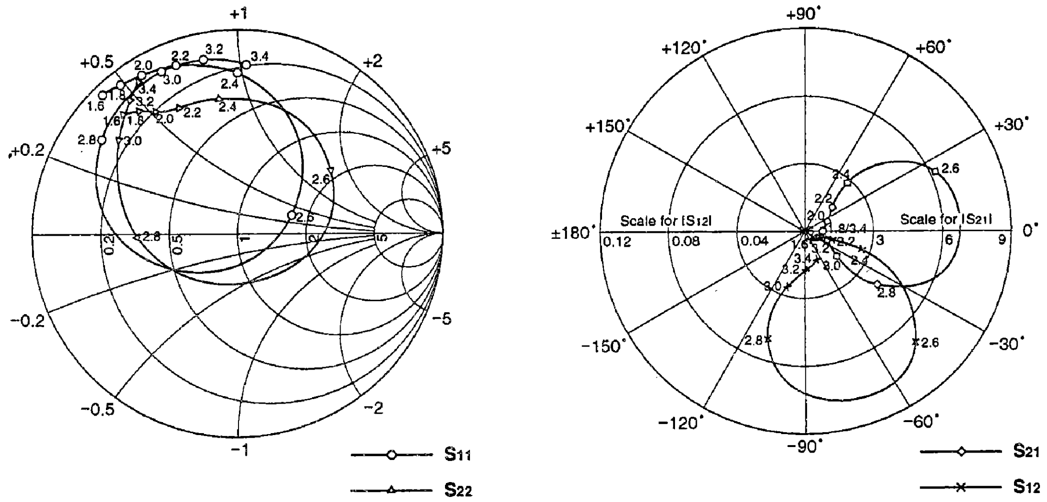


Unit in mm

Substrate Material : Teflon (εr = 2.8)
Thickness : 0.76 mm

TPM2626-14 S-PARAMETERS
(MAGN. and ANGLES)

V_{DS} = 10 V, I_{DS} = 4 A



Frequency (GHz)	S11 MAG	S11 ANG	S21 MAG	S21 ANG	S12 MAG	S12 ANG	S22 MAG	S22 ANG
1.60	0.95	134	0.64	-26	0.006	-52	0.81	134
1.80	0.93	128	0.80	1	0.007	-32	0.77	129
2.00	0.91	121	1.08	24	0.010	-21	0.72	124
2.20	0.88	110	1.63	41	0.017	-17	0.68	115
2.40	0.79	90	2.86	49	0.035	-18	0.67	98
2.60	0.28	19	6.29	25	0.091	-46	0.56	34
2.80	0.81	145	3.99	-37	0.067	-109	0.52	-177
3.00	0.88	115	1.80	-38	0.034	-107	0.74	142
3.20	0.87	101	1.09	-21	0.023	-88	0.84	129
3.40	0.83	87	0.81	1	0.018	-66	0.89	123