

FEATURES :

■ HIGH POWER

$P_{1dB} = 44.5 \text{ dBm at } 2.6 \text{ GHz}$

■ HIGH GAIN

$G_{1dB} = 11.5 \text{ dB at } 2.6 \text{ GHz}$

■ PARTIALLY MATCHED TYPE

■ HERMETICALLY SEALED PACKAGE

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

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Compression Point	P_{1dB}	$V_{DS} = 10 \text{ V}$ $f = 2.6 \text{ GHz}$	dBm	43.5	44.5	—
Power Gain at 1dB Compression Point	G_{1dB}		dB	10.5	11.5	—
Drain Current	I_{DS}		A	—	7.5	9.0
Power Added Efficiency	η_{add}		%	—	35	—
Channel-Temperature Rise	ΔT_{ch}	NOTE 1	$^\circ\text{C}$	—	—	80

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	$V_{DS} = 3 \text{ V}$ $I_{DS} = 7.0 \text{ A}$	mS	—	6300	—
Pinch-off Voltage	V_{GSoff}	$V_{DS} = 3 \text{ V}$ $I_{DS} = 140 \text{ mA}$	V	-1.0	-3.0	-4.0
Saturated Drain Current	I_{DSS}	$V_{DS} = 3 \text{ V}$ $V_{GS} = 0 \text{ V}$	A	—	20	26
Gate-Source Breakdown Voltage	V_{GSO}	$I_{GS} = -420 \mu\text{A}$	V	-5	—	—
Thermal Resistance	$R_{th(c-c)}$	Channel to Case	$^\circ\text{C/W}$	—	1.1	1.4

NOTE 1 : $\Delta T_{ch} = (V_{DS} \times I_{DS} + P_{in} - P_{1dB}) \times R_{th(c-c)}$

Recommended Gate Resistance(R_g) : 30 Ω (MAX.)

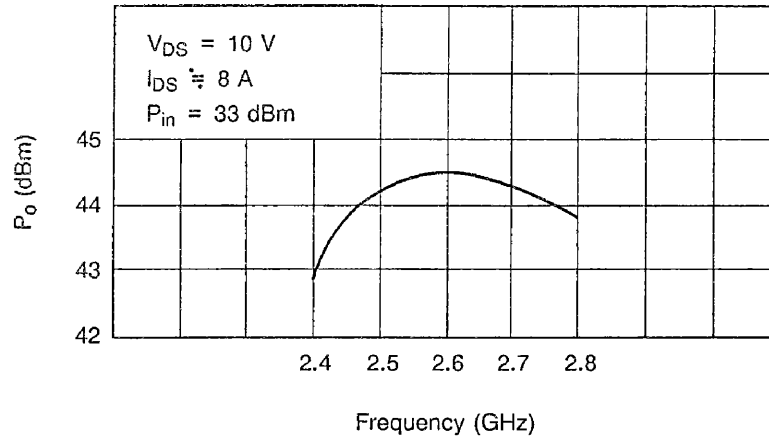
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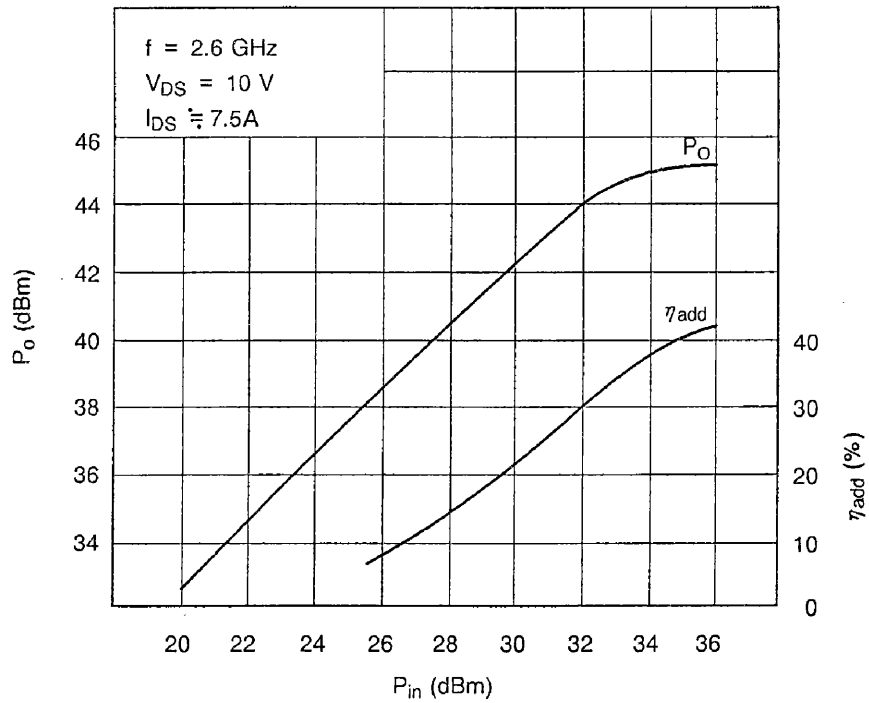
CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V_{DS}	V	15
Gate-Source Voltage	V_{GS}	V	-5
Drain Current	I_{DS}	A	26
Total Power Dissipation ($T_C = 25^{\circ}\text{C}$)	P_T	W	100
Channel Temperature	T_{ch}	$^{\circ}\text{C}$	175
Storage Temperature	T_{stg}	$^{\circ}\text{C}$	-65~175

RF PERFORMANCES

Output Power vs. Frequency

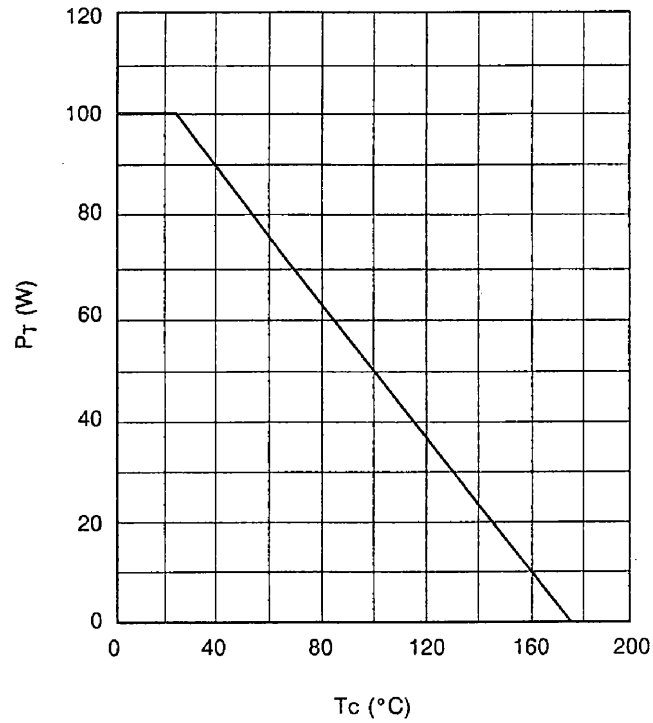


Output Power vs. Input Power

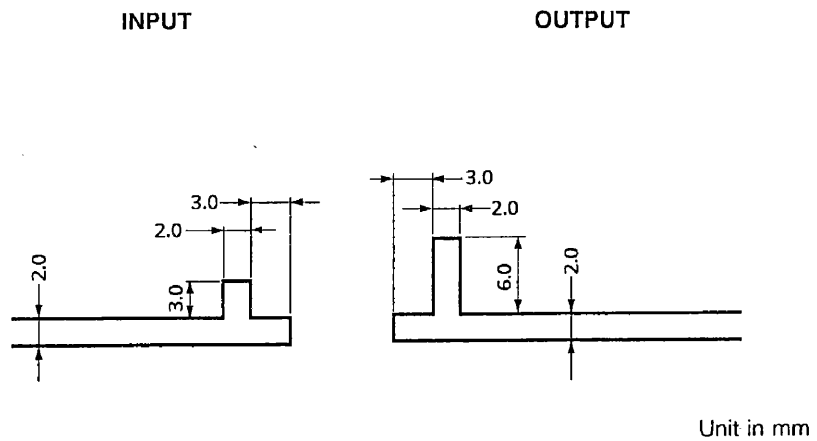


TPM2626-30

POWER DISSIPATION VS. CASE TEMPERATURE



DRAWING OF MATCHING NETWORK



Substrate Material : Teflon ($\epsilon_r = 2.8$)
Thickness : 0.76 mm

TPM2626-30

TPM2626-30 S-PARAMETERS (MAGN. and ANGLES)

$V_{DS} = 10 \text{ V}$, $I_{DS} = 8 \text{ A}$

