TOSHIBA

MICROWAVE SEMICONDUCTOR TECHNICAL DATA

MICROWAVE POWER GaAs FET

TPM2626-30-301

FEATURES:

■ HIGH POWER

 $P_{1dB} = 46$ dBm at 2.6 GHz

HIGH GAIN

 $G_{1dB} = 12 \text{ dB at } 2.6 \text{ GHz}$

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}		dBm	45.0	46.0	_
Power Gain at 1dB Compression Point	G _{1dB}	V _{DS} = 10 V f = 2.6 GHz	dB	11.0	12.0	
Drain Current	I _{DS}		Α	_	8.0	9.0
Power Added Efficiency	7add		%	-	47	_
Channel-Temperature Rise	ΔTch	NOTE 1	°C	_	_	90

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	$V_{DS} = 3 V$ $I_{DS} = 8.0 A$	mS		8000	-
Pinch-off Voltage	V_{GSoff}	$V_{DS} = 3 V$ $I_{DS} = 140 \text{ mA}$	V	-1.0	-3.0	-4.0
Saturated Drain Current	I _{DSS}	$V_{DS} = 3 V$ $V_{GS} = 0 V$	А		20	26
Gate-Source Breakdown Voltage	V _{GSO}	$I_{GS} = -500 \mu\text{A}$	V	- 5	_	_
Thermal Resistance	R _{th (c-c)}	Channel to Case	°C/W	_	0.8	1.2

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

[★] 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.

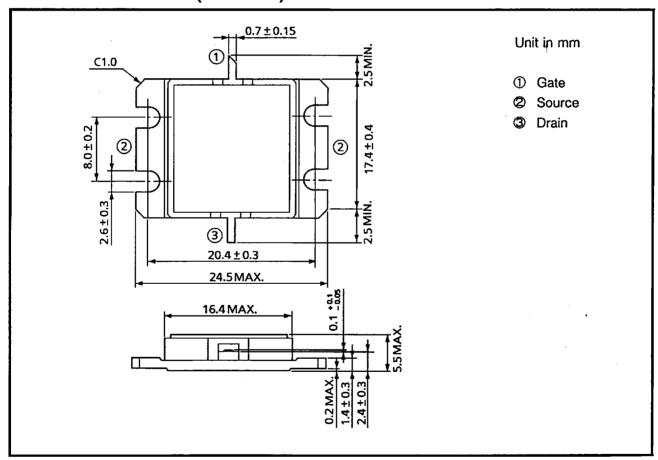


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ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V _{DS}	V	-15
Gate-Source Voltage	V _{GS}	V	-5
Drain Current	IDS	A	26
Total Power Dissipation (T _C = 25°C)	P _T	W	100
Channel Temperature	T _{ch}	°C	175
Storage Temperature	T _{stg}	°C	<i>-</i> 65∼175

PACKAGE OUTLINE (2-16G1B)



HANDLING PRECAUTIONS FOR PACKAGED TYPE

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