

TOSHIBA

July 1997

TIM1414-2-252**1. RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)**

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power at 1dB Compression Point	P _{1dB}	V _{DS} = 9V f=13.75-14.5GHz	32.0	33.0	—	dBm
Power Gain at 1dB Compression Point	G _{1dB}		5.0	6.0	—	dB
Drain Current	I _{DS}		—	0.85	1.1	A
Power Added Efficiency	η _{add}		—	20	—	%

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2. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

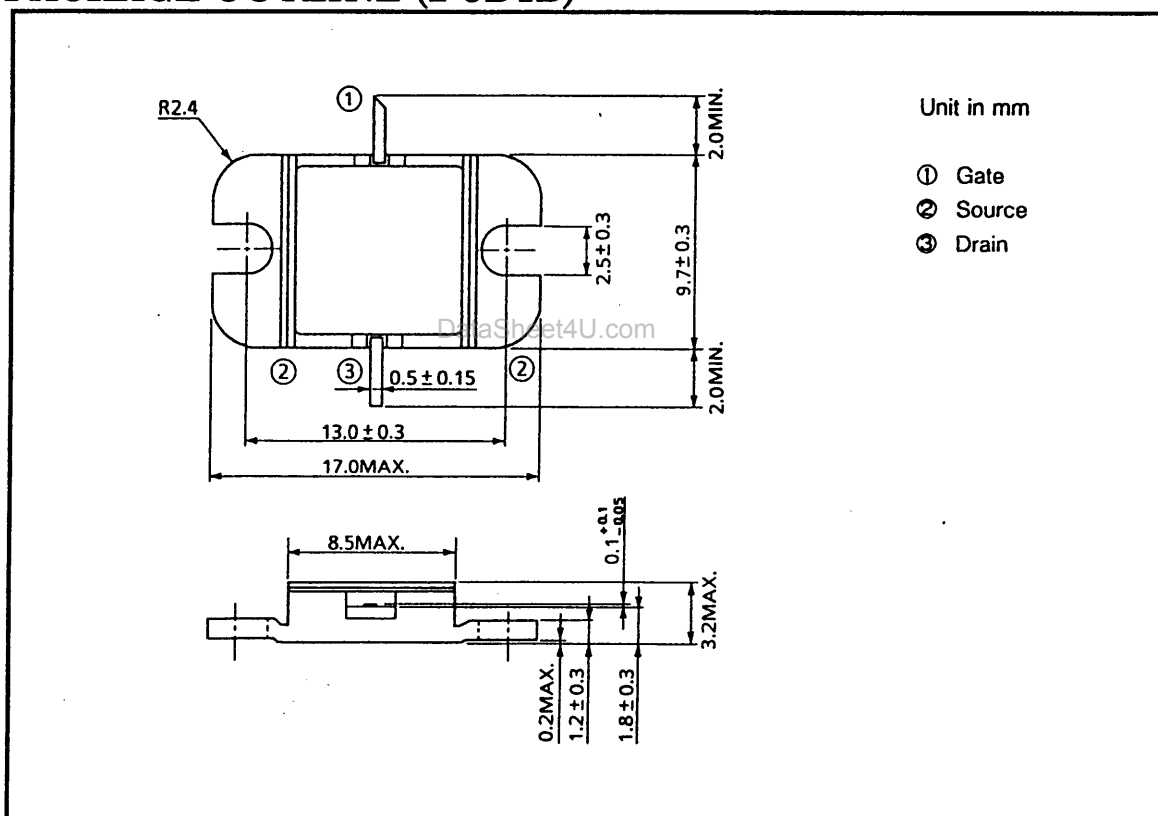
CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Transconductance	g _m	V _{DS} = 3V I _{DS} = 1.0A	—	600	—	mS
Pinch-off Voltage	V _{GSoff}	V _{DS} = 3V I _{DS} = 30mA	-1.5	-3.5	-5	V
Saturated Drain Current	I _{DSS}	V _{DS} = 3V V _{GS} =0V	—	2.0	2.6	A
Gate-Source Breakdown Voltage	V _{GS0}	I _{GS} = -30μA	-5	—	—	V
Thermal Resistance	R _{th(c-c)}	Channel to Case	—	5	6	°C/W

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3. ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	RATING	UNIT
Drain-Source Voltage	VDS	15	V
Gate-Source Voltage	VGS	-5	V
Drain Current	IDS	2.6	A
Total Power Dissipation (Tc= 25 °C)	PT	15	W
Channel Temperature	Tch	175	°C
Storage	Tstg	-65 ~ +175	°C

PACKAGE OUTLINE (2-9D1B)**HANDLING PRECAUTIONS FOR PACKAGED TYPE**

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

The information contained here is subject to change without notice.

Applications Engineering
Microwave Solid-State Department

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