

# TOSHIBA

**MICROWAVE SEMICONDUCTOR  
TECHNICAL DATA**

**MICROWAVE POWER GaAs FET**

**TIM5964-4-251**

**RF PERFORMANCE SPECIFICATIONS (Ta=25°C)**

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P1dB	VDD=10V F = 5.9-6.75GHz	dBm	35.0	35.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	8.0	8.5	—
Drain Current	Ids1		A	—	1.1	1.5
Power Added Efficiency	$\eta_{add}$		%	—	31	—

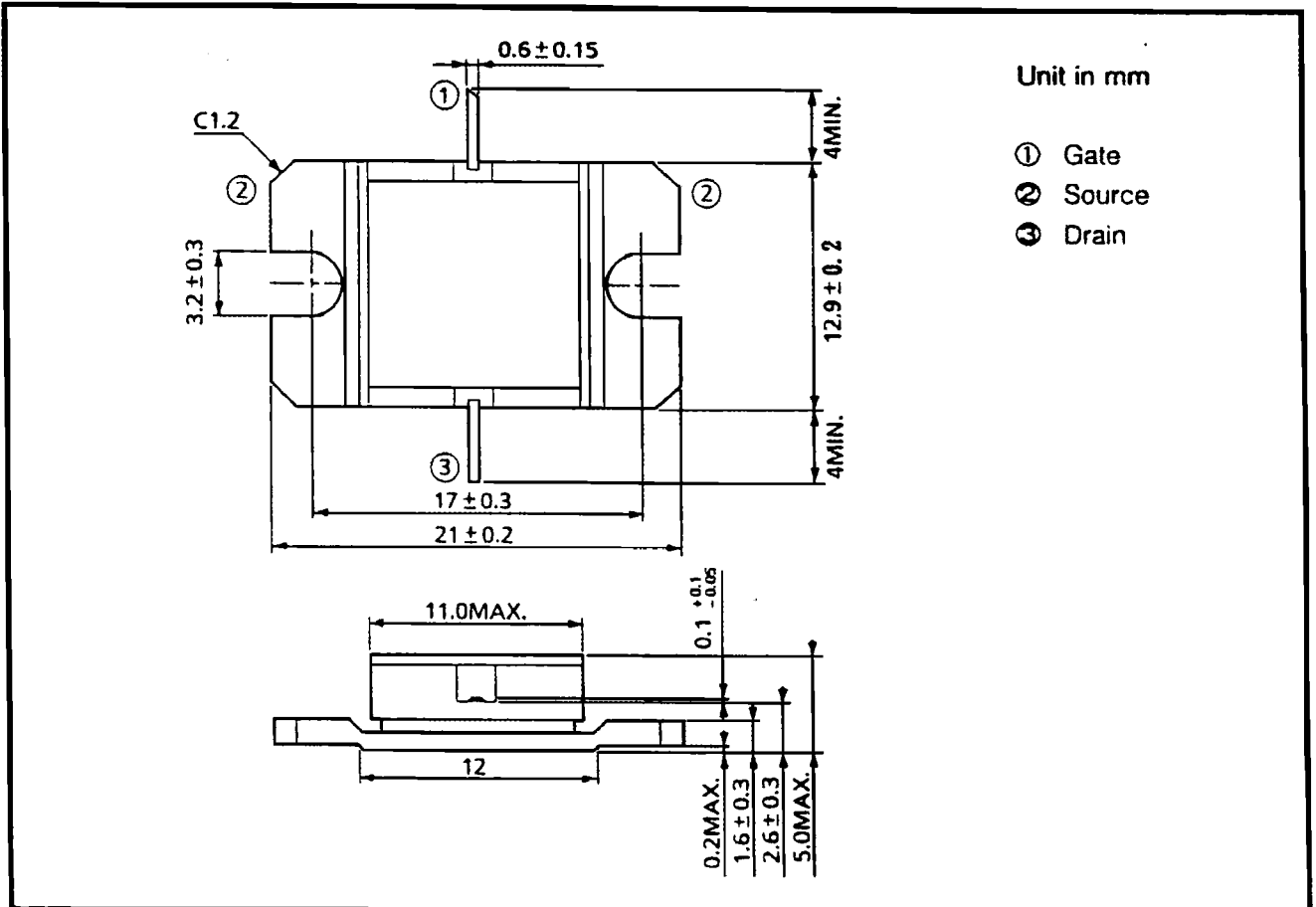
**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	Vds=3V Ids=1.5A	mS	—	900	—
Pinch-off Voltage	Vgsoff	Vds=3V Ids=15mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	Idss	Vds=3V Vgs=0V	A	—	2.6	3.5
Gate - Source Breakdown Voltage	Vgso	IGS= -50 $\mu$ A	V	-5	—	—
Channel Temperature Rise	$\Delta T_{ch}$	VDS×IDS×Rth(c-c)	°C	—	—	80
Terminal Resistance	Rth (c-c)	Channel to case	°C/W	—	4.0	6.0

## 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	3.5
Total Power Dissipation ( $T_C = 25^\circ\text{C}$ )	$P_T$	W	23
Channel Temperature	$T_{ch}$	$^\circ\text{C}$	175
Storage Temperature	$T_{stg}$	$^\circ\text{C}$	-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.