

TIM5964-16SL-251

1. RF PERFORMANCE SPECIFICATIONS (Ta= 25 °C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power at 1dB Compression Point	P _{1dB}	V _{DS} = 10V f= 5.9- 6.75GHz	41.5	42.5	—	dBm
Power Gain at 1dB Compression Point	G _{1dB}		8.0	—	—	dB
Drain Current	I _{DS}		—	4.4	5.0	A
Power Added Efficiency	η _{add}		—	34	—	%
3rd Order Intermodulation Distortion	IM ₃	NOTE	-42	-45	—	dBc
Gain Flatness	ΔG				±0.8	dB

NOTE : Two Tone Test, P_o= 31.5dBm (Single Carrier Level)

2. ELECTRICAL CHARACTERISTICS (Ta= 25 °C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Transconductance	g _m	V _{DS} = 3V I _{DS} = 6A	—	3600	—	mS
Pinch-off Voltage	V _{GSoff}	V _{DS} = 3V I _{DS} = 60mA	-1.0	-2.5	-4.0	V
Saturated Drain Current	I _{DSS}	V _{DS} = 3V V _{GS} = 0V	—	10.5	14.0	A
Gate-Source Breakdown Voltage	V _{GSO}	I _{GS} = -200 μA	-5	—	—	V
Thermal Resistance	R _{th(c-c)}	Channel to Case	—	1.5	2.0	°C/W
Channel-Temperature Rise	ΔT _{ch}	V _{DS} ×I _{DS} ×R _{th(c-c)}	—	—	80	°C

Applications Engineering

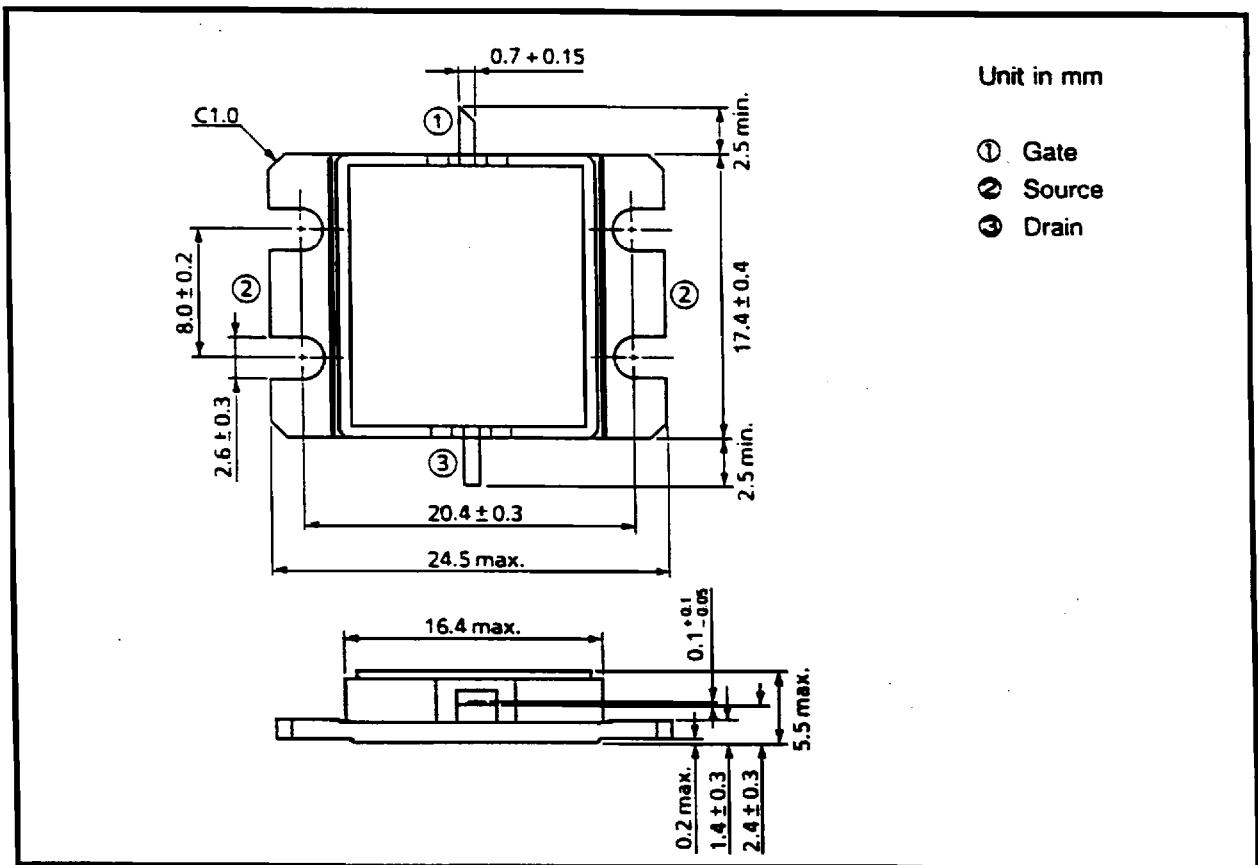
Solid-State Engineering Department

TOSHIBA CORPORATION, Komukai Works

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	14
Total Power Dissipation (T _C = 25°C)	P _T	W	75
Channel Temperature	T _{ch}	°C	175
Storage Temperature	T _{stg}	°C	-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.