

TIM5964-16L-151

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=5.85- 6.65GHz	41.5	42.5	—	dBm
Power Gain at 1dB Compression Point	G _{1dB}		6.0	7.0	—	dB
Drain Current	I _{DS1}		—	4.8	5.5	A
3rd Order Intermodulation Distortion	IM ₃	NOTE 1	-42	-45	—	dBc
Drain Current	I _{DS2}		—	4.8	5.5	A
Channel Temperature Rise	ΔT _{ch}	NOTE 2	—	—	80	°C

NOTE 1 : Two Tone Test, P_o= 31.5dBm (Single Carrier Level)

NOTE 2 : R_{th(c-c)} × [V_{DS} × I_{DS}]

2. ELECTRICAL CHARACTERISTICS (Ta= 25 °C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Transconductance	g _m	V _{DS} = 3V I _{DS} = 6.0A	—	3600	—	mS
Pinch-off Voltage	V _{GSoff}	V _{DS} = 3V I _{DS} = 80mA	-2.0	-3.5	-5.0	V
Saturated Drain Current	I _{DSS}	V _{DS} = 3V V _{GS} = 0V	—	11.6	15.0	A
Gate-Source Breakdown Voltage	V _{GSO}	I _{GS} = -240 μA	-5	—	—	V
Thermal Resistance	R _{th(c-c)}	Channel to Case	—	1.4	1.8	°C/W

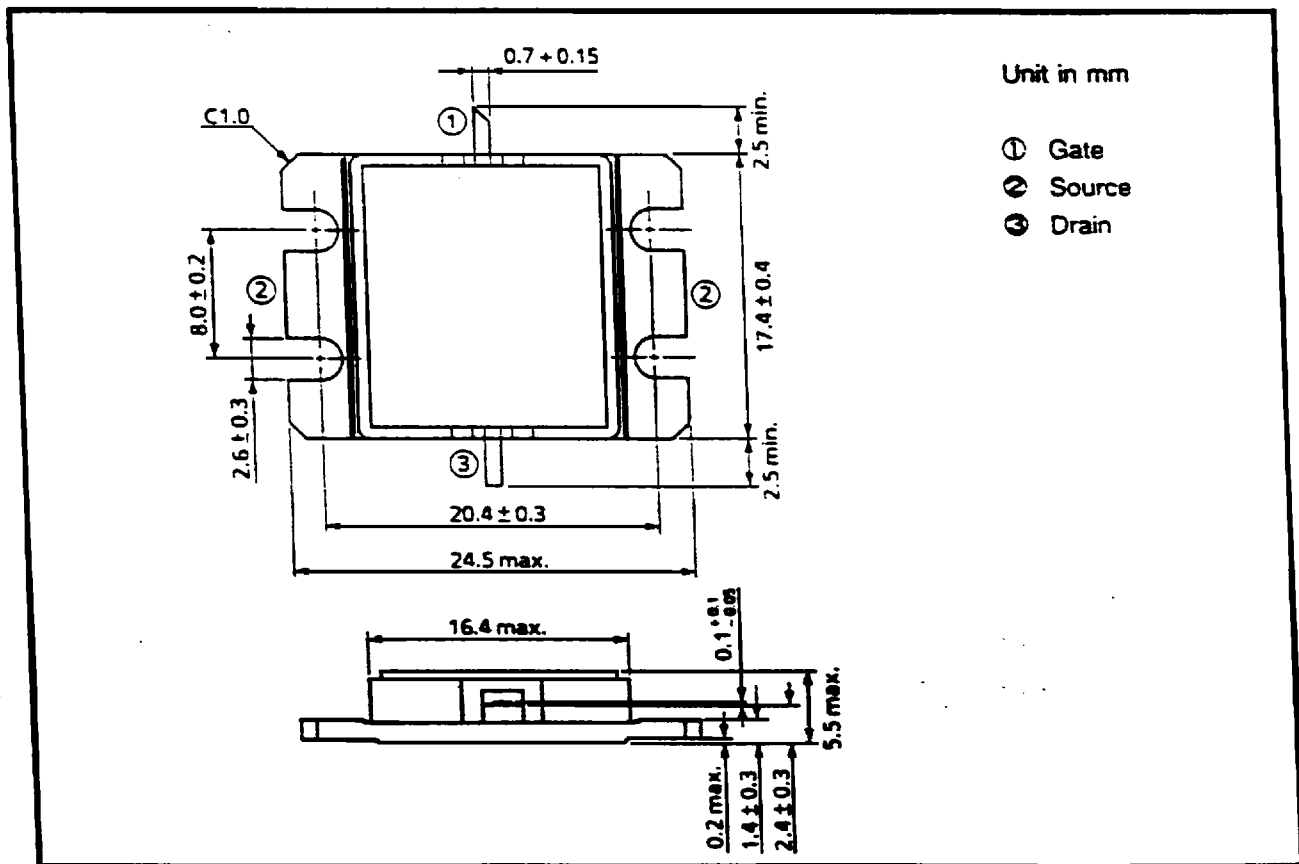
Applications Engineering

Solid-State Engineering Department

TOSHIBA CORPORATION, Komukai Works

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

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 ($T_C = 25^\circ\text{C}$)	P_T	W	75
Channel Temperature	T_{ch}	$^\circ\text{C}$	175
Storage Temperature	T_{stg}	$^\circ\text{C}$	-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 .