

## TIM5964-16L-151

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

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power at 1dB Compression Point	P <sub>1dB</sub>	V <sub>DS</sub> = 10V f=5.85- 6.65GHz	41.5	42.5	—	dBm
Power Gain at 1dB Compression Point	G <sub>1dB</sub>		6.0	7.0	—	dB
Drain Current	I <sub>DS1</sub>		—	4.8	5.5	A
3rd Order Intermodulation Distortion	IM <sub>3</sub>	NOTE 1	-42	-45	—	dBc
Drain Current	I <sub>DS2</sub>		—	4.8	5.5	A
Channel Temperature Rise	ΔT <sub>ch</sub>	NOTE 2	—	—	80	°C

NOTE 1 : Two Tone Test, P<sub>o</sub>= 31.5dBm (Single Carrier Level)

NOTE 2 : R<sub>th(c-c)</sub> x[V<sub>DS</sub>xI<sub>DS</sub>]

### 2. ELECTRICAL CHARACTERISTICS (Ta= 25 °C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Transconductance	g <sub>m</sub>	V <sub>DS</sub> = 3V I <sub>DS</sub> = 6.0A	—	3600	—	mS
Pinch-off Voltage	V <sub>GSoff</sub>	V <sub>DS</sub> = 3V I <sub>DS</sub> = 80mA	-2.0	-3.5	-5.0	V
Saturated Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 3V V <sub>GS</sub> = 0V	—	11.6	15.0	A
Gate-Source Breakdown Voltage	V <sub>GS0</sub>	I <sub>GS</sub> = -240 μA	-5	—	—	V
Thermal Resistance	R <sub>th(c-c)</sub>	Channel to Case	—	1.4	1.8	°C/W

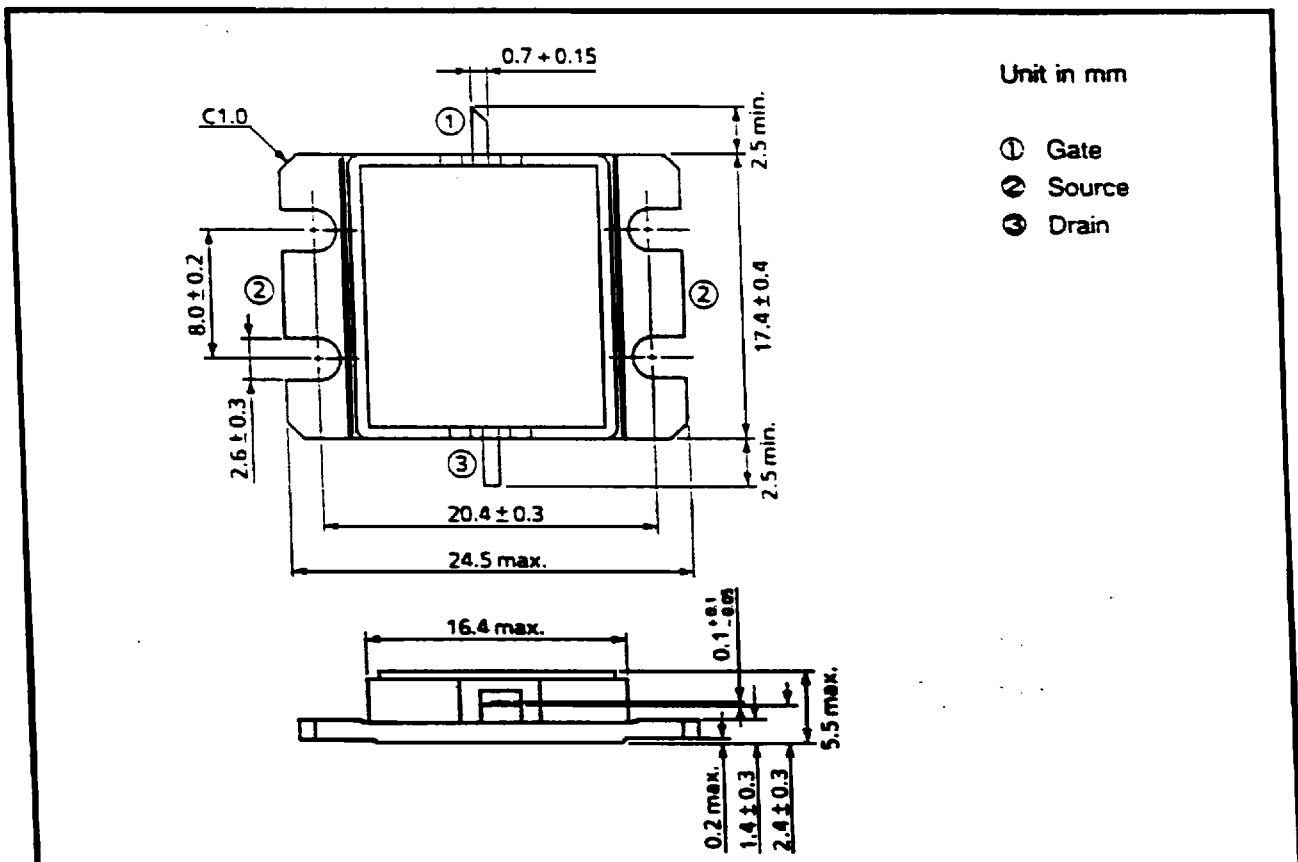
Applications Engineering

Solid-State Engineering Department

TOSHIBA CORPORATION, Komukai Works

**ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)**

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	V <sub>DS</sub>	V	15
Gate-Source Voltage	V <sub>GS</sub>	V	-5
Drain Current	I <sub>DS</sub>	A	14
Total Power Dissipation (T <sub>C</sub> = 25°C)	P <sub>T</sub>	W	75
Channel Temperature	T <sub>ch</sub>	°C	175
Storage Temperature	T <sub>sg</sub>	°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.