

**FEATURES**

■ **LOW INTERMODULATION DISTORTION**

IM3=-45 dBc at Po= 36.5dBm,  
 Single Carrier Level

■ **HIGH POWER**

P1dB=48.0dBm at 5.9GHz to 6.4GHz

■ **HIGH GAIN**

G1dB=8.5dB at 5.9GHz to 6.4GHz

■ **BROAD BAND INTERNALLY MATCHED**

■ **HERMETICALLY SEALED PACKAGE**

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

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Compression Point	P1dB	VDS= 10V f = 5.9 – 6.4GHz	dBm	47.0	48.0	—
Power Gain at 1dB Compression Point	G1dB		dB	7.5	8.5	—
Drain Current	IDS1		A	—	13.2	15.0
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	ηadd		%	—	41	—
3rd Order Intermodulation Distortion	IM3	Two Tone Test Po=36.5dBm	dBc	-42	-45	—
Drain Current	IDS2	(Single Carrier Level)	A	—	13.2	15.0
Channel Temperature Rise	ΔTch	VDS X IDS X Rth(c-c)	°C	—	—	90

Recommended gate resistance(Rg) : Rg=Rg1(10 Ω)+Rg2(18 Ω)= 28 Ω (MAX.)

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

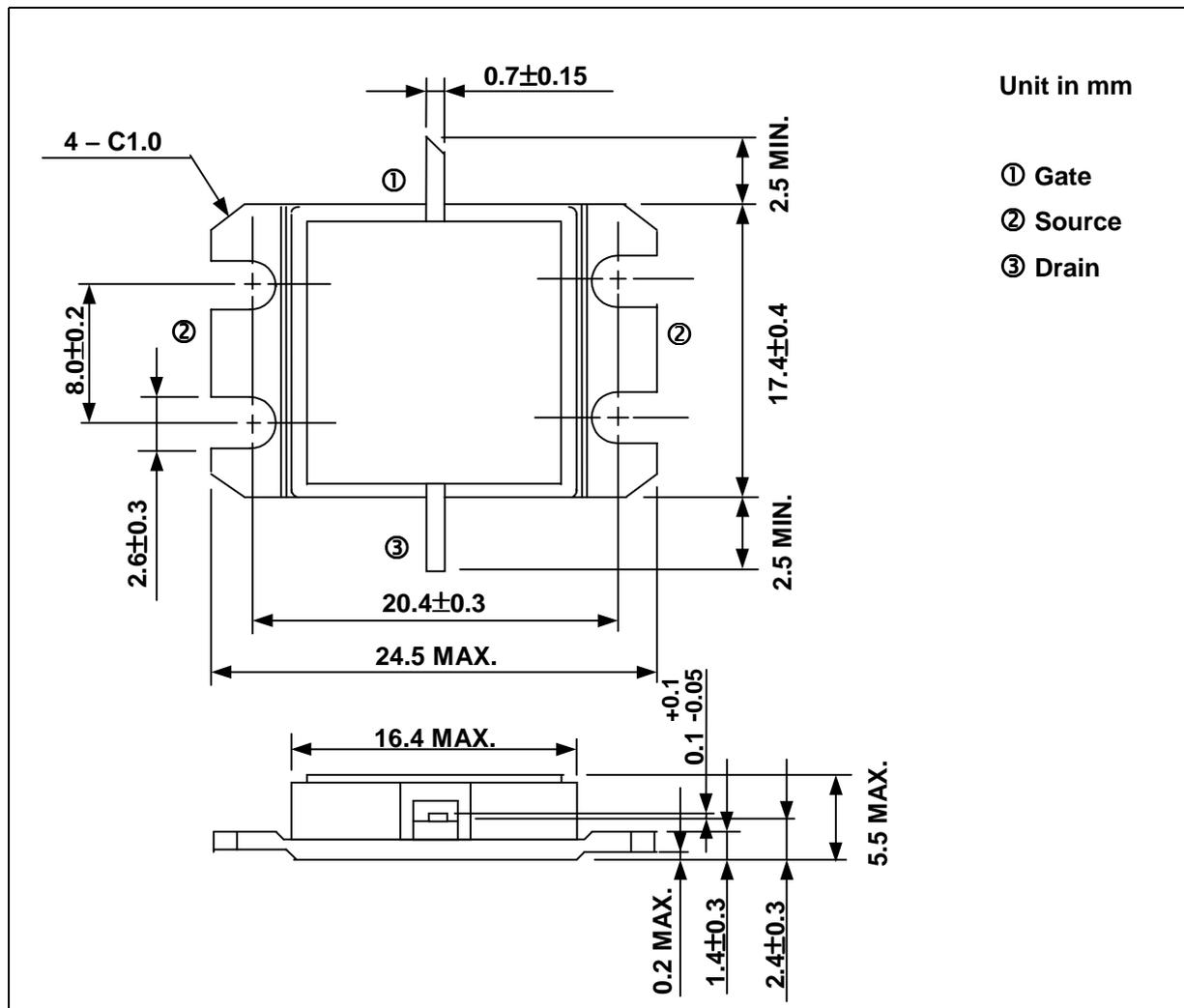
CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 12.0A	S	—	20	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 200mA	V	-1.0	-1.8	-3.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	24	31
Gate-Source Breakdown Voltage	VGSO	IGS= -1.0mA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	0.6	0.8

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The information contained herein is subject to change without prior notice. It is therefor advisable to contact TOSHIBA before proceeding with design of equipment incorporating this product.

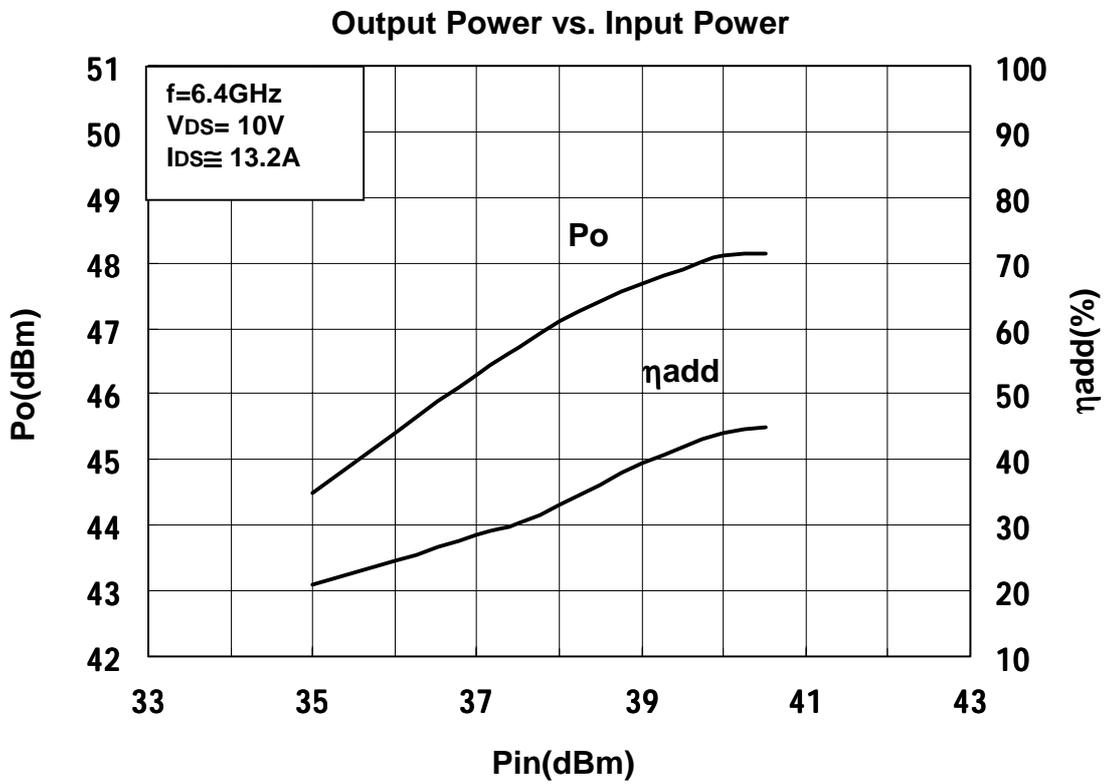
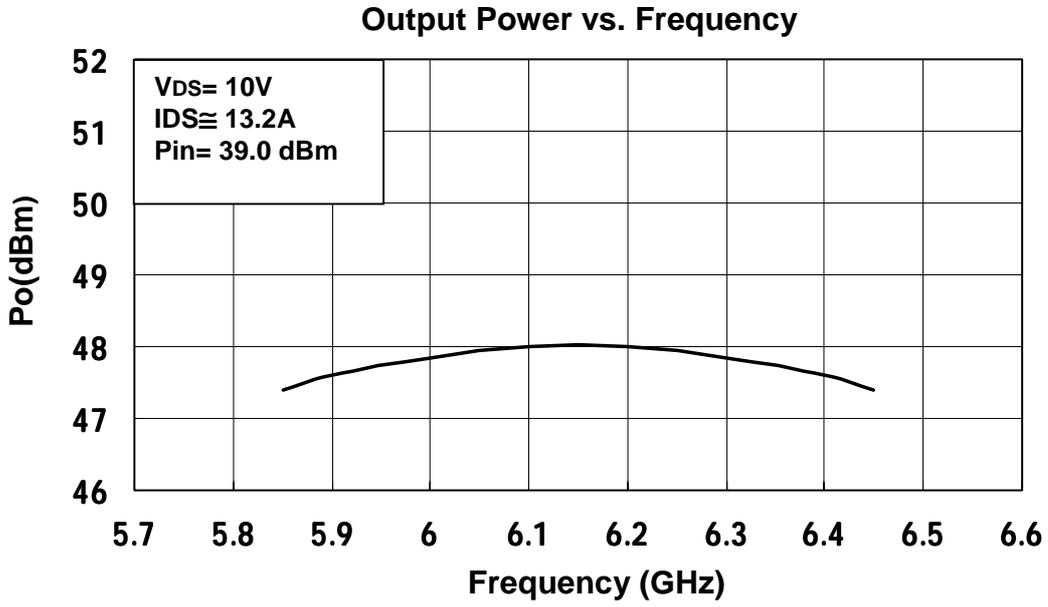
**ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)**

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	VDS	V	15
Gate-Source Voltage	VGS	V	-5
Drain Current	IDS	A	31
Total Power Dissipation (Tc= 25 °C)	PT	W	125
Channel Temperature	Tch	°C	175
Storage	Tstg	°C	-65 ~ +175

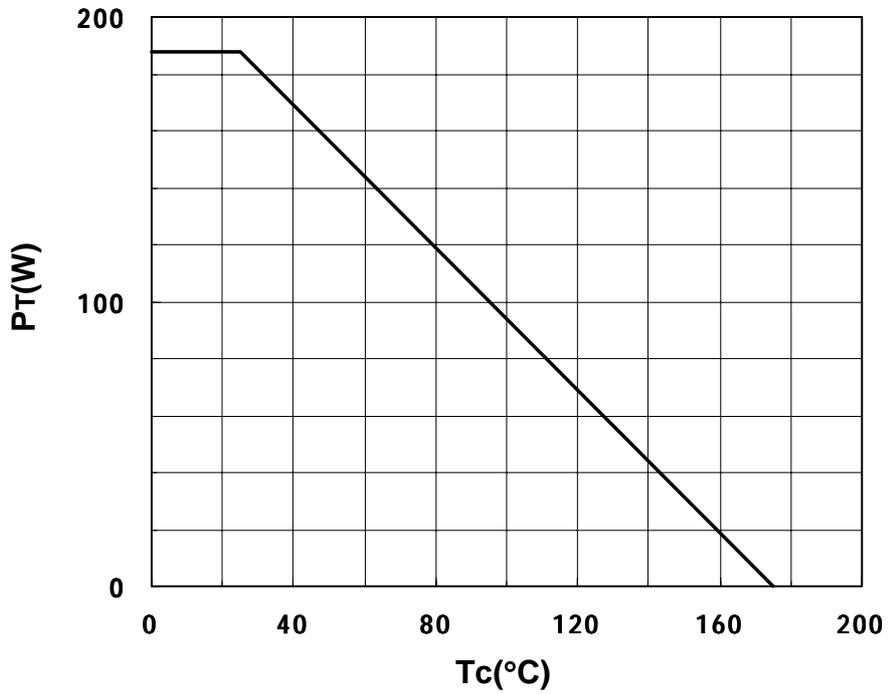
**PACKAGE OUTLINE (2-16G1B)****HANDLING PRECAUTIONS FOR PACKAGED TYPE**

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

RF PERFORMANCES



**POWER DISSIPATION vs. CASE TEMPERATURE**



**IM3 vs. OUTPUT POWER CHARACTERISTICS**

