

## FEATURES

### ■ LOW INTERMODULATION DISTORTION

IM3=-45 dBc at Po= 34.5 dBm,  
 Single Carrier Level

### ■ HIGH POWER

P1dB=45.0 dBm at 3.3GHz to 3.6GHz

### ■ HIGH GAIN

G1dB=11.0dB at 3.3GHz to 3.6GHz

### ■ BROAD BAND INTERNALLY MATCHED FET

### ■ HERMETICALLY SEALED PACKAGE

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

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P1dB	VDS=10V f = 3.3 to 3.6GHz	dBm	44.0	45.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	10.0	11.0	—
Drain Current	IDS1		A	—	7.0	8.0
Gain Flatness	ΔG		dB	—	—	±0.8
Power Added Efficiency	ηadd		%	—	42	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po=34.5 dBm (Single Carrier Level)	dBc	-42	-45	—
Drain Current	IDS2		A	—	7.0	8.0
Channel Temperature Rise	ΔTch	(VDS X IDS + Pin - P1dB) X Rth(c-c)	°C	—	—	100

Recommended gate resistance(Rg) : Rg= 28 Ω(MAX.)

## ELECTRICAL CHARACTERISTICS ( Ta= 25°C )

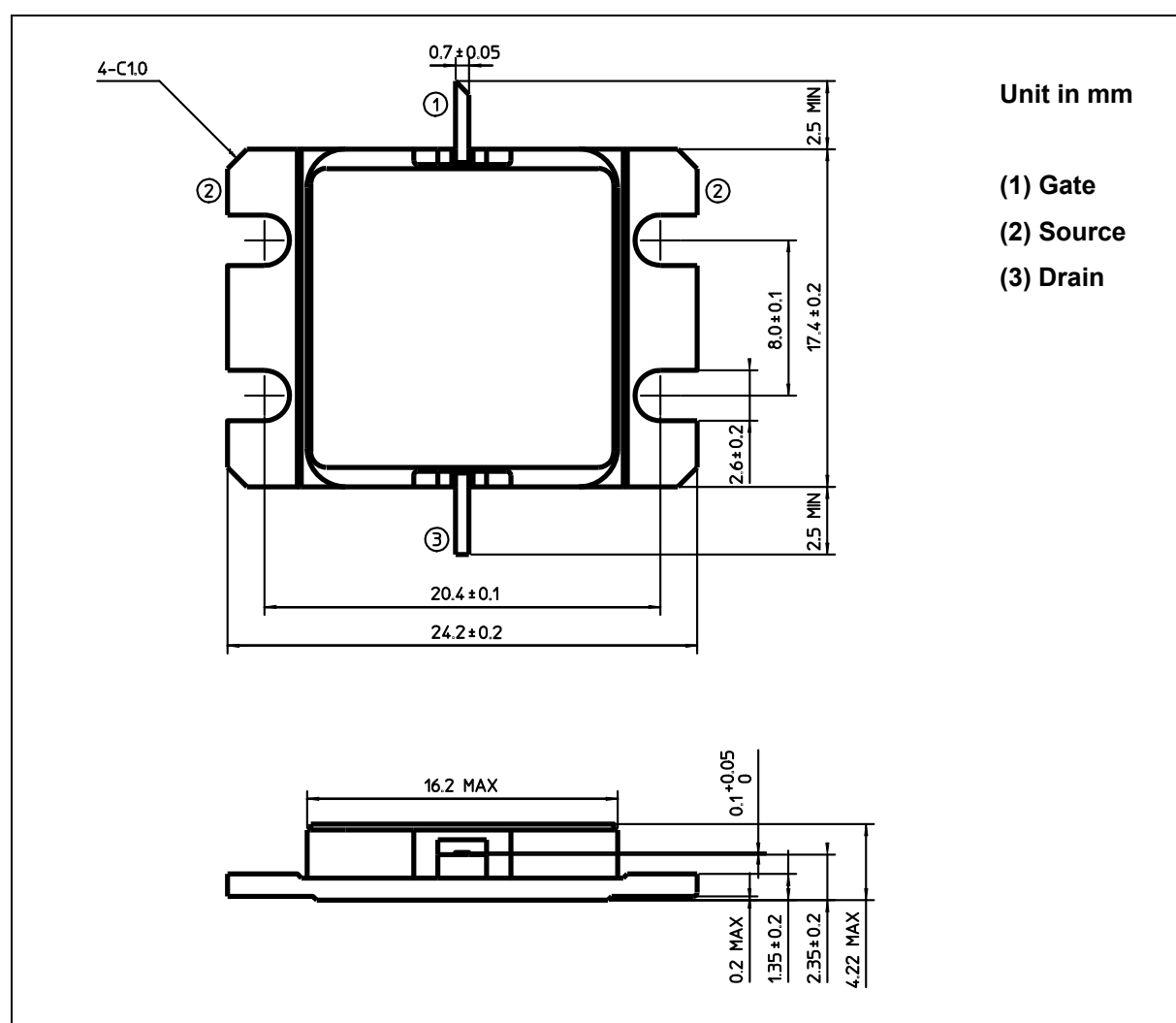
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 10A	mS	—	6300	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 100mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	18	—
Gate-Source Breakdown Voltage	VGSO	IGS= -350μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	1.0	1.3

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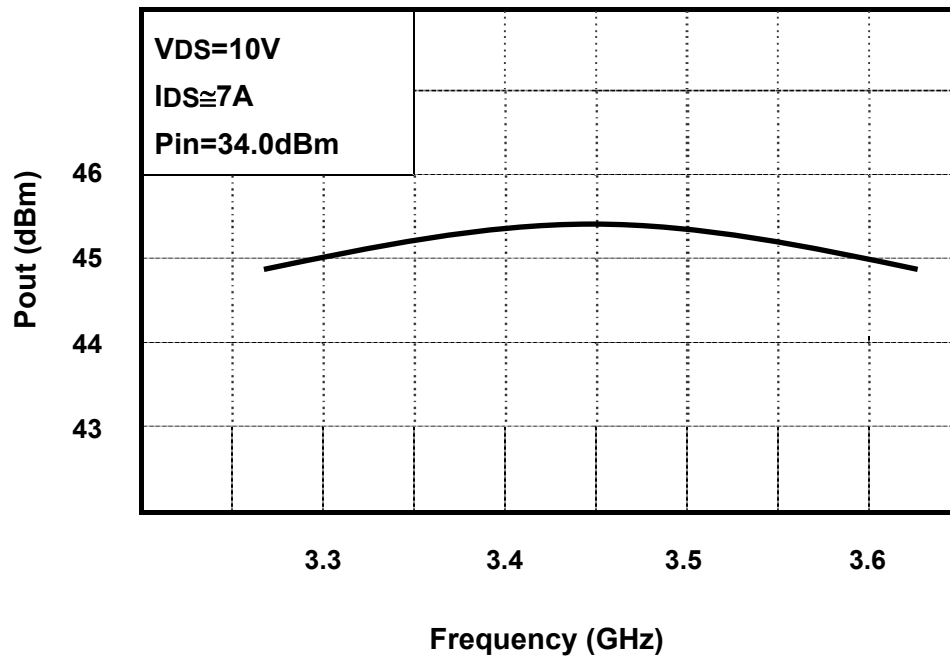
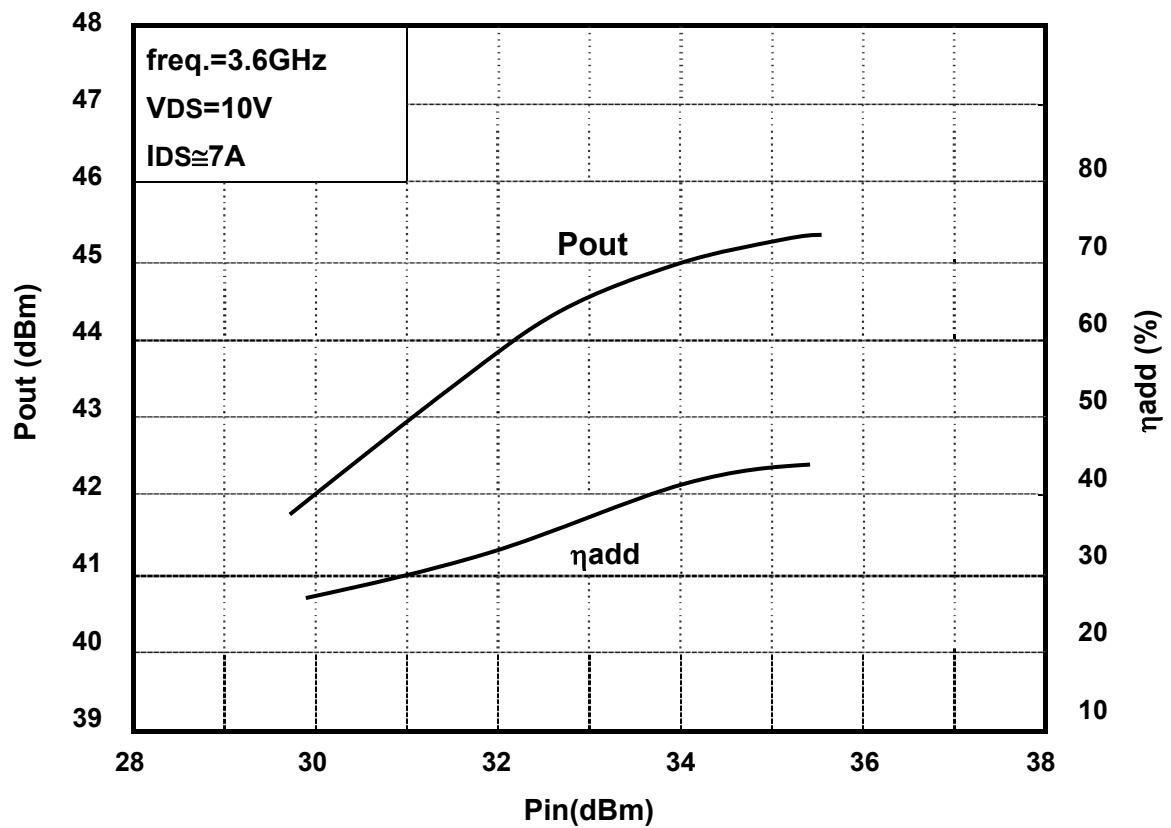
The information contained herein is subject to change without prior notice. It is therefor advisable to contact TOSHIBA before proceeding with design of equipment incorporating this product.

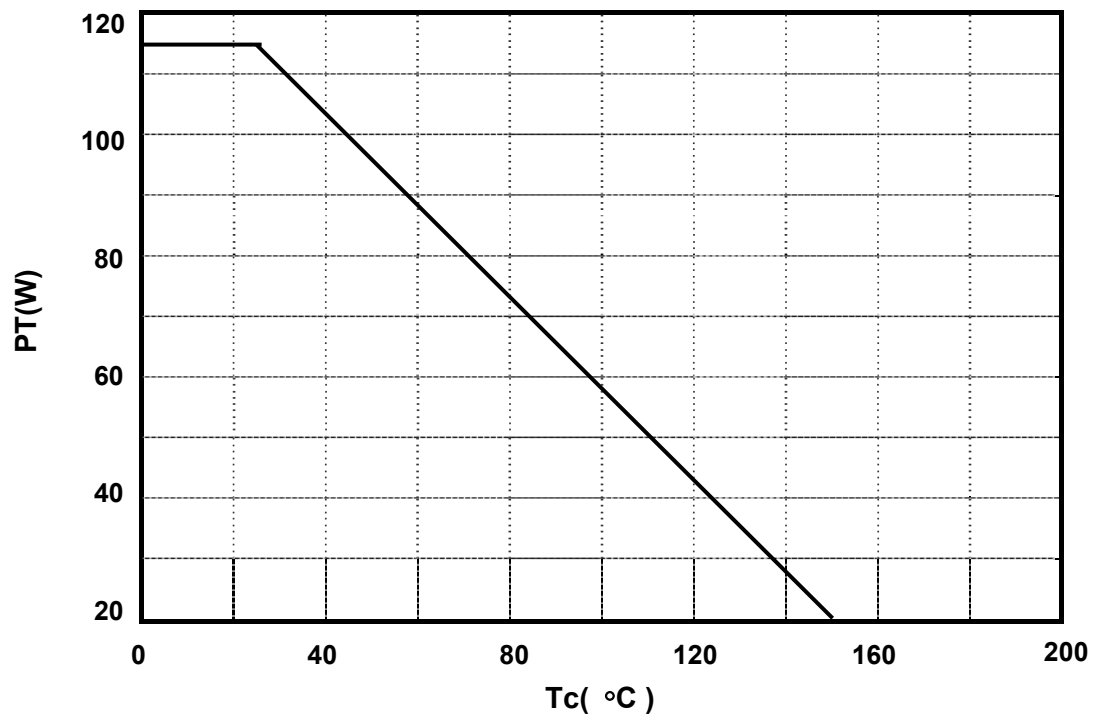
**ABSOLUTE MAXIMUM RATINGS ( Ta= 25°C )**

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	VDS	V	15
Gate-Source Voltage	VGS	V	-5
Drain Current	IDS	A	20
Total Power Dissipation (Tc= 25 °C)	PT	W	115.4
Channel Temperature	Tch	°C	175
Storage	Tstg	°C	-65 to +175

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

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

**RF PERFORMANCE****Output Power (Pout) vs. Frequency****Output Power(Pout) vs. Input Power(Pin)**

**Power Dissipation(PT) vs. Case Temperature(Tc)****IM3 vs. Output Power Characteristics**