

FEATURES

■ **HIGH POWER**

P1dB=33.5dBm at 10.7GHz to 11.7GHz

■ **HIGH GAIN**

G1dB=7.5dB at 10.7GHz to 11.7GHz

■ **BROAD BAND INTERNALLY MATCHED**

■ **HERMETICALLY SEALED PACKAGE**

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power at 1dB Compression Point	P1dB	VDS= 9V f =10.7-11.7GHz	32.5	33.5	—	dBm
Power Gain at 1dB Compression Point	G1dB		6.5	7.5	—	dB
Drain Current	IDS1		—	0.85	1.1	A
Power Added Efficiency	η_{add}		—	24	—	%
3rd Order Intermodulation Distortion	IM3	Two Tone Test P=22dBm (Single Carrier Level)	-42	-45	—	dBc
Drain Current	IDS2		—	0.85	1.1	A
Channel Temperature Rise	ΔT_{ch}	VDS X IDS X Rth(c-c)	—	—	80	°C

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Transconductance	gm	VDS= 3V IDS=1.0A	—	600	—	mS
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 30mA	-2.0	-3.5	-5.0	V
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	—	2.0	2.6	A
Gate-Source Breakdown Voltage	VGSO	IGS= -30 μ A	-5	—	—	V
Thermal Resistance	Rth(c-c)	Channel to Case	—	5.0	6.0	°C/W

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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.

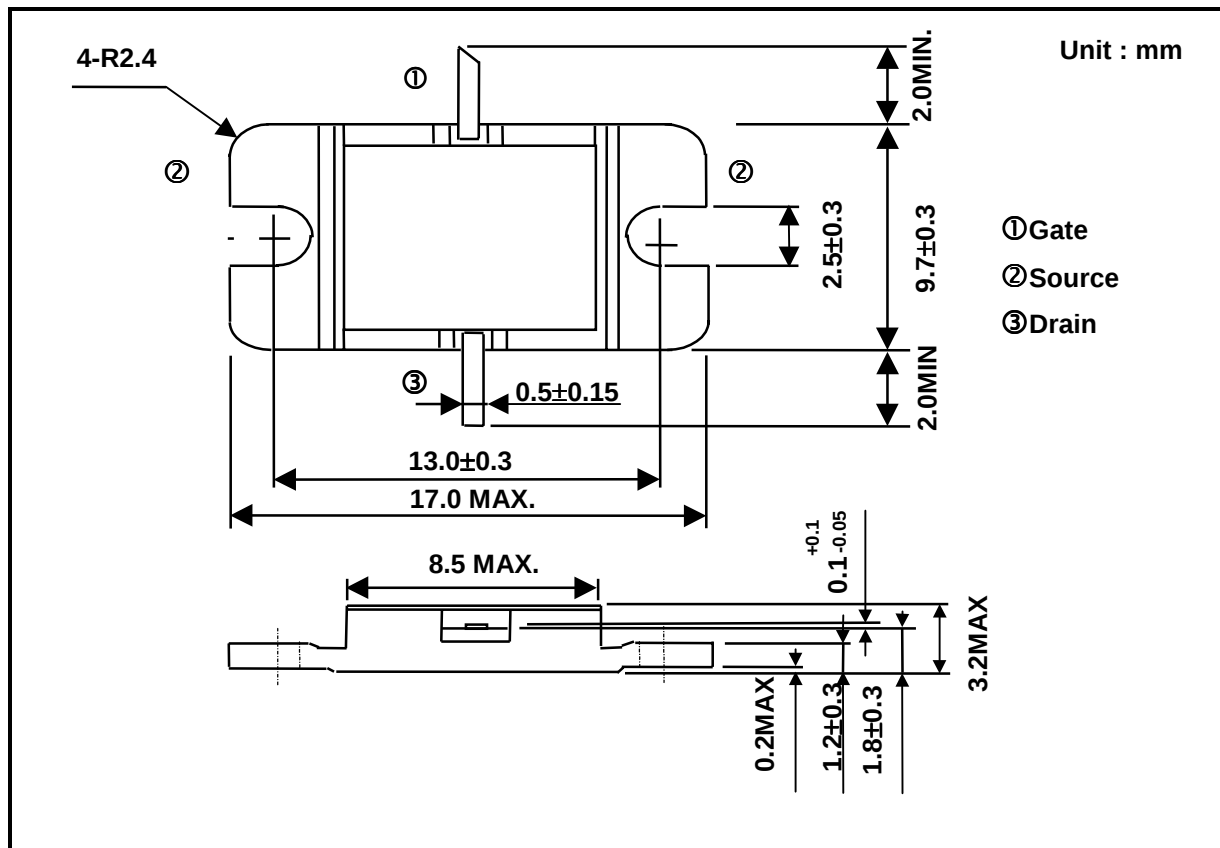
TOSHIBA CORPORATION

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ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	RATING	UNIT
Drain-Source Voltage	VDS	15	V
Gate-Source Voltage	VGS	-5	V
Drain Current	IDS	2.6	A
Total Power Dissipation (Tc= 25 °C)	PT	15	W
Channel Temperature	Tch	175	°C
Storage	Tstg	-65 ~ +175	°C

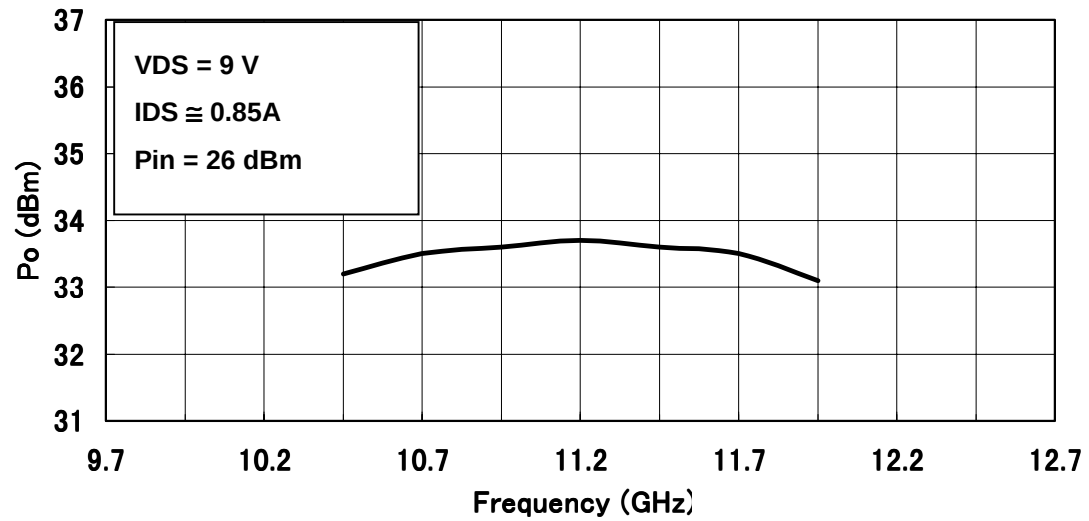
PACKAGE OUTLINE (2-9D1B)



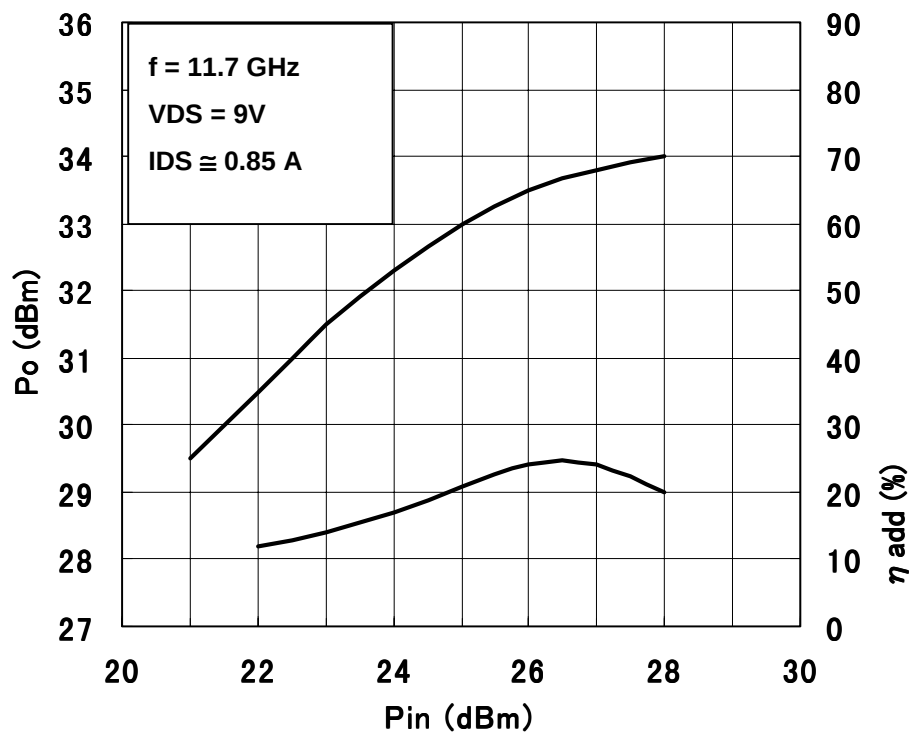
HANDLING PRECAUTIONS FOR PACKAGED TYPE

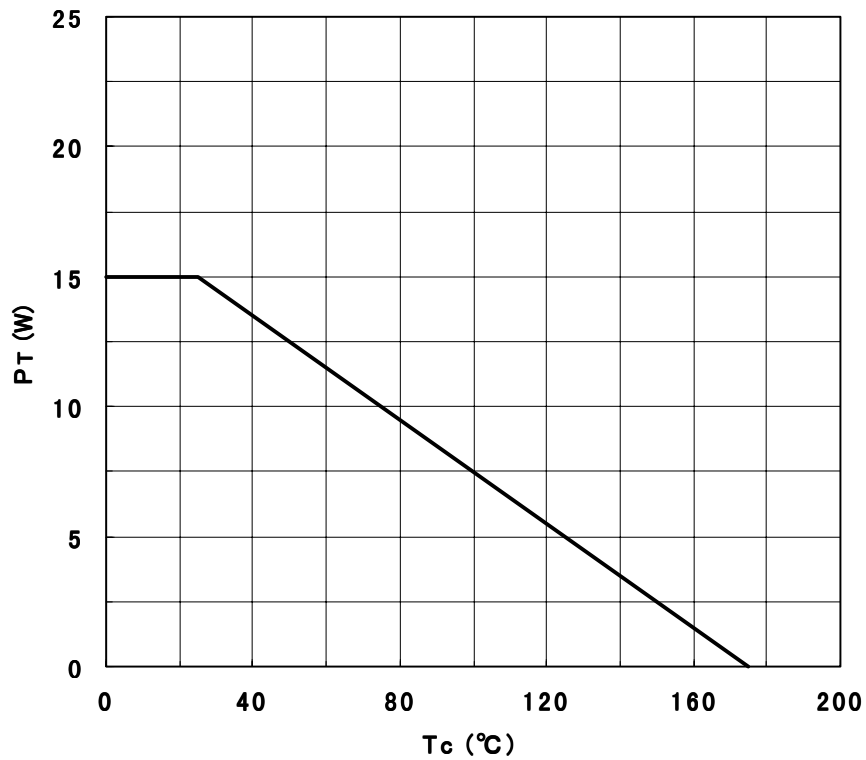
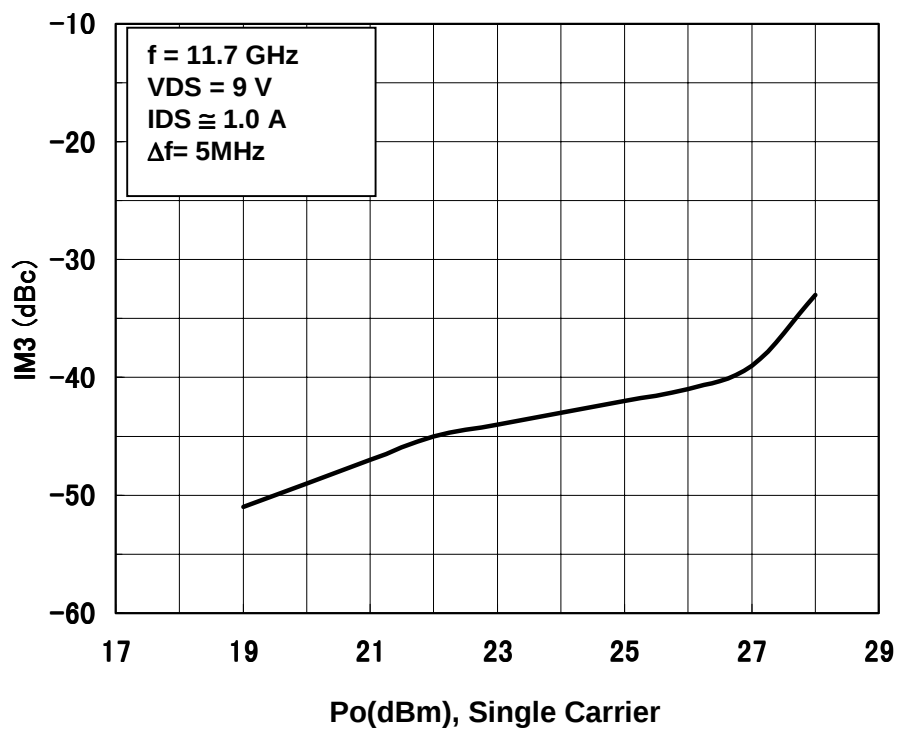
Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C.

Output Power vs. Frequency



Output Power vs. Input Power



POWER DISSIPATION VS. CASE TEMPERATURE**IM3 vs. OUTPUT POWER CHARACTERISTICS**

TIM1011-2L S-PARAMETERS

(MAGN. and ANGLES)

VDS=9V, IDS=1.0A

