

TOSHIBA

MICROWAVE SEMICONDUCTOR TECHNICAL DATA

MICROWAVE POWER GaAs FET

TIM0910-15L

RF PERFORMANCE SPECIFICATIONS (Ta=25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P1dB	VDD=9V f = 9.5-10.5GHz	dBm	41.0	42.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	6.0	7.0	—
Drain Current	Ids1		A	—	4.5	5.5
Gain Flatness	ΔG		dB	—	—	+/-0.8
3 rd Order Intermodulation Distortion	IM3	Note	dBc	-42	-45	—
Drain Current	Ids2		A	—	4.5	5.5

Note: Two Tone Test, Po=30dBm (Single carrier Level)

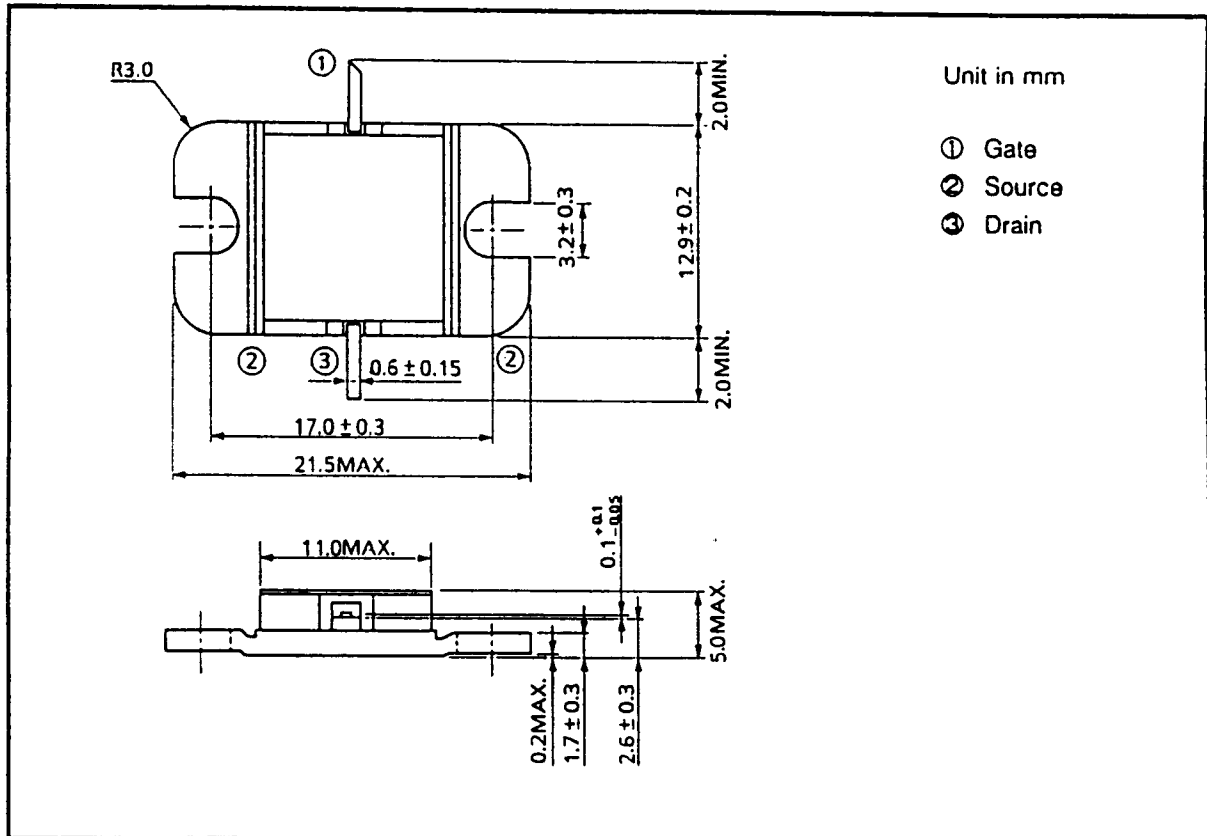
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTICS	SYMBOL	CONDITION	UNIT	MIN.	TYP.	MAX.
DRAIN SUPPLY VOLTAGE	gm	Vds=3V Ids=4.8A	mS	—	3000	—
Pinch-off Voltage	Vgsoff	Vds=3V Ids=145mA	V	-1.5	-3.0	-4.5
Saturated Drain Current	Idss	Vds=3V Vgs=0V	A	—	10.0	11.5
Gate-Source Breakdown Voltage	Vgso	IGS= -145μA	V	-5	—	—
Thermal Resistance	Rth (c-c)	Channel to case	°C/W	—	2.0	2.5

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

CHARACTERISTIC	SYMBOL	UNIT	RATING
Drain-Source Voltage	V_{DS}	V	15
Gate-Source Voltage	V_{GS}	V	-5
Drain Current	I_{DS}	A	11.5
Total Power Dissipation ($T_C = 25^{\circ}\text{C}$)	P_T	W	60
Channel Temperature	T_{ch}	$^{\circ}\text{C}$	175
Storage Temperature	T_{slg}	$^{\circ}\text{C}$	-65~175

PACKAGE OUTLINE (2-11C1B)



HANDLING PRECAUTIONS FOR PACKAGED TYPE

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