

TOSHIBA

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TIM1414-10LA-252**1. RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)**

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power at 1dB Compression Point	P _{1dB}	V _{DS} = 9V f =13.75-14.5GHz	39.0	39.5	-	dBm
Power Gain at 1dB Compression Point	G _{1dB}		4.5	5.5	-	dB
Drain Current	I _{DS}		-	4.0	5.0	A
Power Added Efficiency	η _{add}		-	23	-	%
3rd Order Intermodulation Distortion	IM3	2-tone test P _o =29dBm(SCL)	-42	-45	-	dBc
Channel Temperature Rise	ΔT _{ch}	V _{DS} × I _{DS} × R _{th}	-	-	90	°C

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2. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Transconductance	g _m	V _{DS} = 3V I _{DS} = 4.8A	-	2800	-	mS
Pinch-off Voltage	V _{GSoff}	V _{DS} = 3V I _{DS} = 145mA	-2.0	-3.5	-5.0	V
Saturated Drain Current	I _{DSS}	V _{DS} = 3V V _{GS} =0V	-	10.0	11.5	A
Gate-Source Breakdown Voltage	V _{GSO}	I _{GS} = -145μA	-5	-	-	V
Thermal Resistance	R _{th(c-c)}	Channel to Case	-	2.0	2.5	°C/W

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