

PRELIMINARY

TIM5964-8SL-031

1. RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Output Power at 1dB Compression Point	P _{1dB}	V _{DS} = 10V f = 5.9-6.4GHz I _{DS} =2.0A Constant	38.5	39.5	—	dBm
Power Gain at 1dB Compression Point	G _{1dB}		8.0	9.0	—	dB
Power Added Efficiency	η add		—	39	—	%
Gain Flatness	Δ G		—	—	± 0.6	dB
Channel Temperature Rise	Δ T _{ch}	R _{th} × I _{DS} × V _{DS}	—	—	75	°C
3rd Order Intermodulation Distortion	IM ₃	Note 1	-42	-45	—	dBc

Note1 : 2 Tone Test, P_o=28.5dBm(SCL), I_{DS}=2.0A Constant

2. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Transconductance	gm	V _{DS} = 3V I _{DS} = 3.0A	—	1800	—	mS
Pinch-off Voltage	V _{GSoff}	V _{DS} = 3V I _{DS} = 30mA	-1.0	-2.5	-4.0	V
Saturated Drain Current	I _{DSS}	V _{DS} = 3V V _{GS} =0V	—	5.2	7.0	A
Gate-Source Breakdown Voltage	V _{GS0}	I _{GS} = -100 μ A	-5	—	—	V
Thermal Resistance	R _{th(c-c)}	Channel to Case	—	2.5	3.8	°C/W

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