

## TIM1414-10LA-252

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

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

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**2. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

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

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