

TOSHIBA**MICROWAVE SEMICONDUCTOR****TECHNICAL DATA****MICROWAVE POWER MMIC AMPLIFIER
TMD1013-1-431****FEATURES****n HIGH POWER**

P1dB=33.0dBm at 9.5GHz to 12.0GHz

n HIGH GAIN

G1dB=25.0dB at 9.5GHz to 12.0GHz

n BROAD BAND INTERNALLY MATCHED**n HERMETICALLY SEALED PACKAGE****ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)**

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain Supply Voltage	VDD	V	15
Gate Supply Voltage	VGG	V	-10
Input Power	Pin	dBm	15
Flange Temperature	Tf	°C	-30 ~ +80
Storage Temperature	Tstg	°C	-65 ~ +175

RF PERFORMANCE SPECIFICATIONS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P1dB	VDD= 10V VGG= -5V f = 9.5 – 12.0GHz	dBm	31.0	33.0	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	21.0	25.0	—
Gain Flatness	ΔG		dB	—	—	± 2.5
Drain Current	IDD		A	—	1.4	1.8
Power Added Efficiency	η_{add}		%	—	14	—
3 rd Order Intermodulation Distortion	IM3	2 tone @ Po=19dBm(S.C.L.)	dBc	-42	-45	—

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