

WP485P03025MH

25W RF GaN Power Transistor



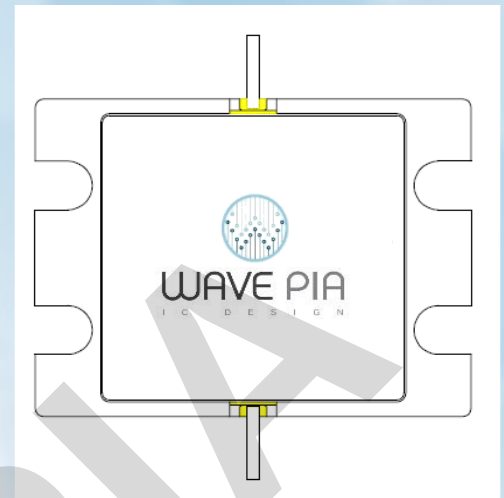
WAVE PIA
I C D E S I G N

Product Features

- Up to 6 GHz Operation
- 14.5 dB Small Signal Gain at 5.06 GHz
- 25W Typical Psat at 5.06 GHz (CW)
- 26% Efficiency at Psat at 5.06 GHz (CW)
- 48 V Operation

Applications

- Broadband Amplifiers
- Test Instrumentation
- Radar application



DC Characteristics (TC = 25 ° C)

Parameter	Symbol	MIN	TYP	MAX	Units	Conditions
Gate Threshold Voltage	$V_{GS(th)}$		-3.1		V_{DC}	$V_{DS} = 48 V$
Gate Quiescent Voltage	$V_{GS(Q)}$		-2.79		V_{DC}	$V_{DS} = 48 V, I_D = 300 mA$

RF Characteristics (TC = 25 ° C , F0 = 5.06GHz unless otherwise noted)

Parameter	Symbol	MIN	TYP	MAX	Units	Conditions
Saturated Output Power	P_{SAT}		26		W	$V_{DD} = 48 V, I_{DQ} = 300 mA, CW$
Pulsed Drain Efficiency ¹	η		26		%	$V_{DD} = 48 V, I_{DQ} = 300 mA, CW$

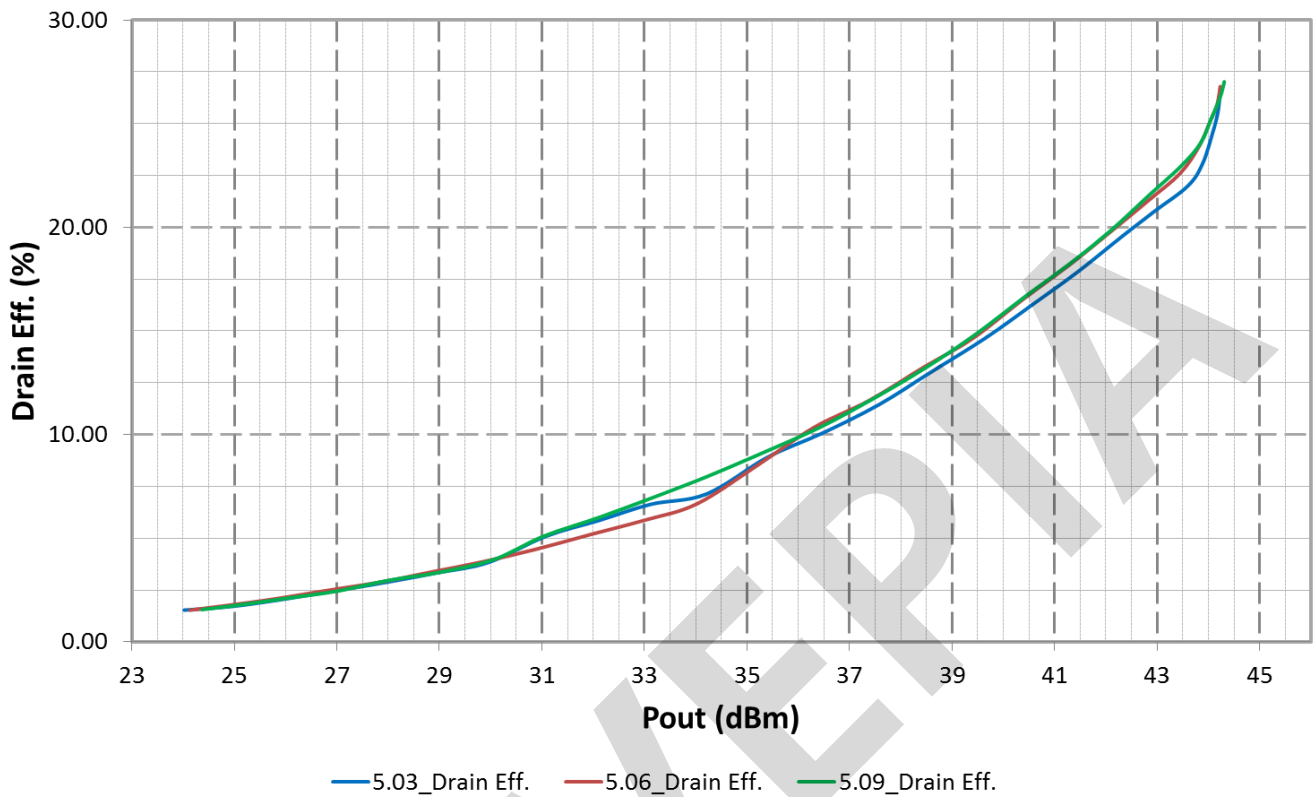
Note:

1. Drain Efficiency = P_{OUT} / P_{DC}

CW Signal Performance (Tc=25°C, Measured in the test board amplifier circuit)

VDD = 48 V, IDQ = 300 mA,

Drain Efficiency vs. Pout

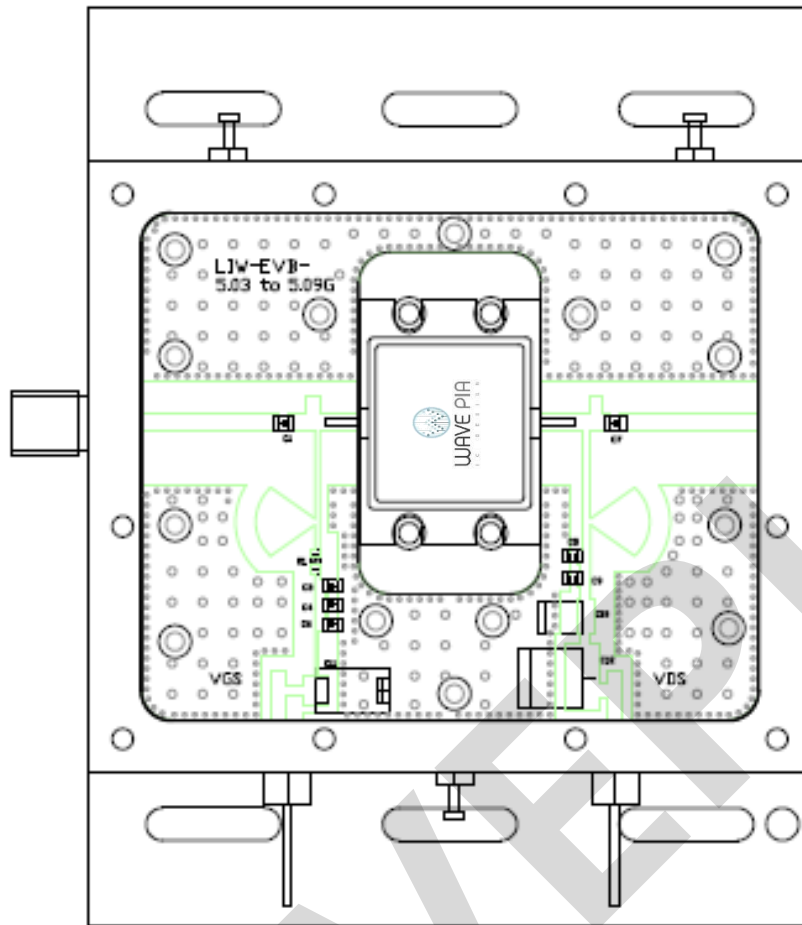


Small Signal Performance (Tc=25°C, Measured in the test board amplifier circuit)

VDD = 48 V, IDQ = 300 mA



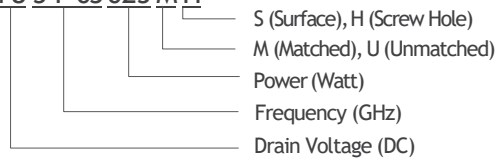
Demonstration board



Reference	Value	Description	Package	Manufacturer
C1,C7	3.0pF	High Q Capacitor	CHA	TEMEX
C3,C8	5.6pF	High Q Capacitor	CHA	TEMEX
C4	100pF	Ceramic Capacitor	2010	Murata
C5	100nF	Ceramic Capacitor	2010	Murata
C11	22uF/16V	Tantalum Capacitor	-	-
C9	100pF	High Q Capacitor	CHA	TEMEX
C10	10pF	High Q Capacitor	CHA	TEMEX
C11	470nF	High V Capacitor	3528	Johanson Dielectrics
C12	47uF/100V	High V Tantalum Capacitor	-	-
R1	50Ω	Chip Resistor	2010	Walsin

Part number code

WP 4 8 5 P 03 025 M H



Package Dimensions

