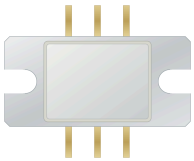
2000–6000 MHz GaN Internally Matched Power Transistor — Pout 45.51 dBm @ 6000 MHz (typical)

LCT-2000-6000-PO45p51T · 2000–6000 MHz · GaN Internally Matched Power Transistor.



The RF table specifies: Reference output power 45.51 dBm (typical); Power gain 19.51 dB (typical); Drain efficiency 39.82 % (typical) @ 6000 MHz. RF test conditions: TA = +25 °C; VDS = 28 V; IDQ = 1.3 A; CW; f = 6000 MHz; Pin = 26 dBm.

MH_400F6BA

Typical application-circuit reference data at 6000 MHz.

Package outline dimensions: 18.03 × 8.7 × 2.49 mm.

RF characteristics

TA = +25 °C; VDS = 28 V; IDQ = 1.3 A; CW; f = 6000 MHz; Pin = 26 dBm

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Operating frequency	f	2000	-	6000	MHz
Reference output power [1]	-	-	45.51	-	dBm
Power gain [1]	-	-	19.51	-	dB
Drain efficiency [1]	ηD	-	39.82	-	%

[1] f = 6000 MHz

DC bias and current

TA = +25 °C

Parameter	Symbol	Minimum	Typical	Maximum	Value	Unit
Drain operating voltage	-	-	-	-	28	V
Quiescent drain current	-	-	-	-	1.3	A
Gate threshold voltage [1]	-	-4	-2.8	-1	-	V
Quiescent gate bias [2]	-	-	-2.6	-	-	V
Drain-source breakdown voltage [3]	-	90	-	-	-	V
Drain-source leakage current [4]	-	-	-	0.0104	-	A

[1] VDS = 28 V; ID = 10.4 mA
[2] VDS = 28 V; ID = 1300 mA
[3] VGS = -10 V; ID = 10.4 mA
[4] VGS = -10 V; VDS = 90 V

Absolute limits

Absolute limits; these are not normal operating targets.

Parameter	Symbol	Minimum	Typical	Maximum	Unit
Maximum drain-source voltage	-	-	-	30	V
Minimum gate bias	-	-10	-	-	V
Storage temperature	-	-65	-	150	°C
Maximum channel temperature	-	-	-	225	°C
Maximum gate bias	-	-	-	2	V
Maximum forward gate current	-	-	-	0.0104	A

Package outline dimensions

Parameter	Value	Unit
Package outline dimensions	18.03 × 8.7 × 2.49	mm

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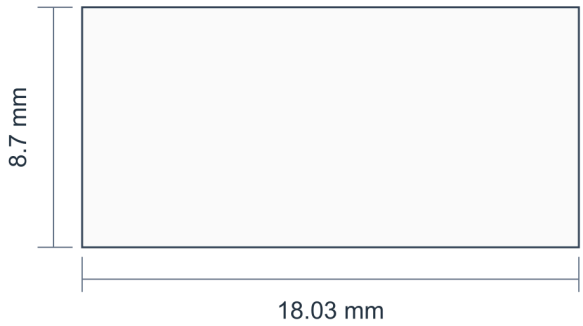
Integration notes

MH_400F6BA Typical application-circuit reference data at 6000 MHz.

Mechanical Outline

Reference drawing showing selected dimensions in mm. Use the complete installation drawing for mounting.

LCT-2000-6000-PO45p51T



18.03 × 8.7 × 2.49 mm

mm

Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.