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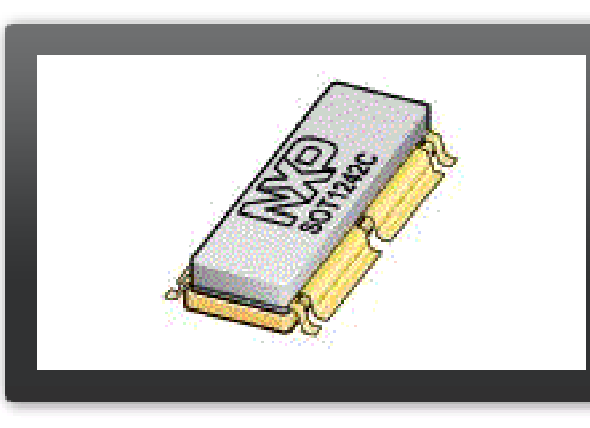

BLF8G09LS-400PGW

Power LDMOS transistor

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Overview | Parametrics | Package / Packing | Quality | Documentation | Ordering | Design support | Show all

Feedback

Direct downloads

- **Datasheet (pdf)**
- All application notes (zip)
- All documentation (zip)

▸ All documents (6)

Quick ordering

BLF8G09LS-400PGWQ
Region -- select your region --

Distributor **In Stock**

OR: Order samples

400 W LDMOS power transistor for base station applications at frequencies from 716 MHz to 960 MHz.

Features and benefits

- Excellent ruggedness
- Device can operate with the supply current delivered through the video leads
- High efficiency
- Low thermal resistance providing excellent thermal stability
- Designed for broadband operation
- Lower output capacitance for improved performance in Doherty applications
- Decoupling leads to enable improved video bandwidth (45 MHz typical)
- Designed for low memory effects providing excellent pre-distortability
- Internally matched for ease of use
- Integrated ESD protection
- Design optimized for gull-wing
- Compliant to Directive 2002/95/EC, regarding Restriction of Hazardous Substances (RoHS)

Applications

RF power amplifiers for base stations and multi carrier applications in the 716 MHz to 960 MHz frequency range

▸ **Series** BLF8G09LS-400P(G)W
Power LDMOS transistor

▸ **Parametric search** all 0.4 - 1.0 GHz transistors

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General product disclaimer
Quality and reliability disclaimer

▸ Parametric search

Design tools
RF
Power Lifetime Calculator
Transistor: BLF8G09LS-400PGW
Case Temp. 80 °C
Design!

Parametrics of this product

Symbol	Parameter	Conditions	Min	Typ/Nom	Max	Unit
f_{range}	frequency range		716		960	MHz
$P_{L(1dB)}$	nominal output power at 1 dB gain compression			400		W
Test signal: 2-carrier W-CDMA						
G_p	power gain	$P_{L(AV)}$ = 95 W; V_{DS} = 28 V	18.8	20.6		dB
RL_{in}	input return loss	$P_{L(AV)}$ = 95 W; V_{DS} = 28 V; I_{Dq} = 3400 mA		-19	-11	dB
η_D	drain efficiency	$P_{L(AV)}$ = 95 W; V_{DS} = 28 V; 716 MHz < f < 728 MHz; I_{Dq} = 3400 mA	26	30		%
$ACPR_{5M}$	adjacent channel power ratio (5 MHz)	$P_{L(AV)}$ = 95 W; V_{DS} = 28 V; 716 MHz < f < 728 MHz; I_{Dq} = 3400 mA		-35	-32	dBc

Similar products

- **Series** BLF8G09LS-400P(G)W
- **Parametric search** all 0.4 - 1.0 GHz transistors
- **Parametrics** series

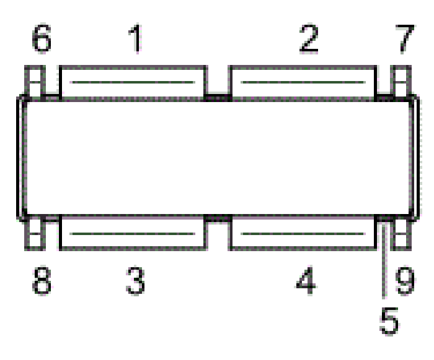
Package

Type number	Package	Outline version	Reflow-/Wave soldering	Packing	Product status	Marking	Orderable part number, (Ordering code (12NC))
BLF8G09LS-400PGW	 CDFM8 (SOT1242C)	sot1242c_po		Horizontal, Rail Pack	Active	Standard Marking	BLF8G09LS-400PGWQ (9340 680 59127)
				Reel 13" Q1/T1	Active	Standard Marking	BLF8G09LS-400PGWJ (9340 680 59118)

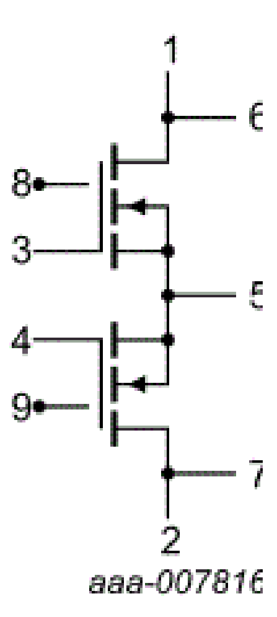
Pinning information

Pin	Symbol	Description
1	D1	drain1
2	D2	drain2
3	G1	gate1
4	G2	gate2
5	S	source
6	DC1	decoupling1
7	DC2	decoupling2
8	n.c.	not connected
9	n.c.	not connected

Simplified outline



Graphic symbol



Quality, reliability & chemical content

Type number	Orderable part number	Chemical content	RoHS / RHF	Leadfree conversion date	MSL	MSL LF
BLF8G09LS-400PGW	BLF8G09LS-400PGWQ	BLF8G09LS-400PGW	EU/CN RoHS COMPLIANT Pb G	Always Pb-free		NA
BLF8G09LS-400PGW	BLF8G09LS-400PGWJ	BLF8G09LS-400PGW	EU/CN RoHS COMPLIANT Pb G	Always Pb-free		NA

▸ Quality and reliability disclaimer

Documentation for this product

Download all documentation (zip)

File name	Title	Type	Format	Date
BLF8G09LS-400PW_8G09LS-400PGW	Power LDMOS transistor	Data sheet	pdf	2015-07-29
AN10896	Mounting and Soldering of RF transistors	Application note	pdf	2015-03-24
PCB_Design_BLF8G09LS-400PW_8G09LS-400PGW_Data-sheet	PCB Design BLF8G09LS-400P(G)W (Data sheet)	Design support	zip	2014-02-24
fatigue_in_aluminum_bond_wires	Fatigue in aluminum bond wires	Mounting and soldering	pdf	2009-10-08
NXP_RF_manual_19th_edition	RF Manual 19th edition: Application and design manual for High Performance RF products May 2015	Other type	pdf	2015-05-19
sot1242c_po	earless flanged ceramic package; 8 leads	Outline drawing	pdf	2012-05-16

Ordering & availability

Type number	Ordering code (12NC)	Orderable part number	Region	Distributor	In stock	Order quantity	Inventory date	Buy online	Samples
BLF8G09LS-400PGW	9340 680 59127	BLF8G09LS-400PGWQ							Order samples
BLF8G09LS-400PGW	9340 680 59118	BLF8G09LS-400PGWJ							not available

Sample
Sample orders normally take 2-4 days for delivery.
If you do not have a direct account with NXP our network of global and regional distributors is available and equipped to support you with NXP samples. As a NXP customer you also have the option to order samples via our sales organisation.

Design tools
RF
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Case Temp. 80 °C
Design!

Find answers to your design questions on this page. If available you can find information in our NXP Support Community or you can find NXP models, Demo boards and Design tools.

Other

Title	Type	Date
PCB Design BLF8G09LS-400P(G)W (Data sheet)	Design support	2014-02-24

Frequently asked questions and Community discussions

The Frequently asked questions are answers provided by NXP technical experts. The discussions are between users of the Community, these can be NXP technical experts, but also other users.

12-05-2015	Any idea how to use simulation model from ADS-2009 to ADS-2014 ? Because there's no simulation model of BLF8G20LS-220U in ADS-2014.
12-05-2015	BLF8G20LS-220 S-Parameter ?
12-05-2015	Any idea how to use simulation model from ADS-2009 to ADS-2014 ? Because there's no simulation model of BLF8G20LS-220U in ADS-2014.
12-05-2015	BLF8G20LS-220 S-Parameter ?

Go to the NXP Support Community

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- Find answers in our technical support site.

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