





# FDMC86102LZ

Manufacturer Part Number	<b>FDMC86102LZ</b>
Manufacturer	<b>onsemi</b>
Allelco Part Number	32D-FDMC86102LZ
ECAD Model	 PCB Symbol, Footprint & 3D Mode
Parts Description	MOSFET N-CH 100V 7A/18A 8MLP
Package	8-PowerWDFN
Data sheet	<b>FDMC86102LZ.pdf</b>
RoHs Status	 ROHS3 Compliant



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## Specifications





FDMC86102LZ Tech Specifications

FDMC86102LZ - onsemi technical specifications, attributes, parameters

Product Attribute	Attribute Value	Product Attribute	Attribute Value
Manufacturer	onsemi	Operating Temperature	-55°C ~ 150°C (TJ)
Vgs(th) (Max) @ Id	2.2V @ 250µA	Mounting Type	Surface Mount
Vgs (Max)	±20V	Input Capacitance (Ciss) (Max) @ Vds	1290 pF @ 50 V
Technology	MOSFET (Metal Oxide)	Gate Charge (Qg) (Max) @ Vgs	22 nC @ 10 V
Supplier Device Package	8-MLP (3.3x3.3)	FET Type	N-Channel
Series	PowerTrench®	FET Feature	-
Rds On (Max) @ Id, Vgs	24mOhm @ 6.5A, 10V	Drive Voltage (Max Rds On, Min Rds On)	4.5V, 10V
Power Dissipation (Max)	2.3W (Ta), 41W (Tc)	Drain to Source Voltage (Vdss)	100 V
Package / Case	8-PowerWDFN	Current - Continuous Drain (Id) @ 25°C	7A (Ta), 18A (Tc)
Package	Tape & Reel (TR)	Base Product Number	FDMC86102

## Parts with Similar Specifications


The three parts on the right have similar specifications to onsemi FDMC86102LZ

Product Attribute	 NO PICTURE			
Part Number	FDMC86102LZ	FDMC86160ET100	FDMC8588	FDMC86139P
Manufacturer	onsemi	onsemi	onsemi	onsemi
Rds On (Max) @ Id, Vgs	24mOhm @ 6.5A, 10V	14mOhm @ 9A, 10V	5mOhm @ 17A, 10V	67mOhm @ 4.4A, 10V
Vgs (Max)	±20V	±20V	±12V	±25V
Gate Charge (Qg) (Max) @ Vgs	22 nC @ 10 V	22 nC @ 10 V	12 nC @ 4.5 V	22 nC @ 10 V
Power Dissipation (Max)	2.3W (Ta), 41W (Tc)	2.8W (Ta), 65W (Tc)	2.4W (Ta), 26W (Tc)	2.3W (Ta), 40W (Tc)
FET Type	N-Channel	N-Channel	N-Channel	P-Channel
Package	Tape & Reel (TR)	Tape & Reel (TR)	Tape & Reel (TR)	Tape & Reel (TR)
Package / Case	8-PowerWDFN	8-PowerWDFN	8-PowerTDFN	8-PowerWDFN
Input Capacitance (Ciss) (Max) @ Vds	1290 pF @ 50 V	1290 pF @ 50 V	1228 pF @ 13 V	1335 pF @ 50 V
Drain to Source Voltage (Vdss)	100 V	100 V	25 V	100 V
Supplier Device Package	8-MLP (3.3x3.3)	Power33	Power33	8-MLP (3.3x3.3)
FET Feature	-	-	-	-
Operating Temperature	-55°C ~ 150°C (TJ)	-55°C ~ 175°C (TJ)	-55°C ~ 150°C (TJ)	-55°C ~ 150°C (TJ)
Current - Continuous Drain (Id) @ 25°C	7A (Ta), 18A (Tc)	9A (Ta), 43A (Tc)	16.5A (Ta), 40A (Tc)	4.4A (Ta), 15A (Tc)
Vgs(th) (Max) @ Id	2.2V @ 250µA	4V @ 250µA	1.8V @ 250µA	4V @ 250µA
Drive Voltage (Max Rds On, Min Rds On)	4.5V, 10V	6V, 10V	4.5V, 10V	6V, 10V
Technology	MOSFET (Metal Oxide)	MOSFET (Metal Oxide)	MOSFET (Metal Oxide)	MOSFET (Metal Oxide)
Base Product Number	FDMC86102	FDMC86160	FDMC85	FDMC86139
Series	PowerTrench®	PowerTrench®	PowerTrench®	PowerTrench®
Mounting Type	Surface Mount	Surface Mount	Surface Mount	Surface Mount


## FDMC86102LZ Datasheet PDF


Download FDMC86102LZ pdf datasheets and onsemi documentation for FDMC86102LZ - onsemi.

### Datasheets



FDMC86102LZ.pdf


### Environmental Information


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### PCN Design/Specification


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PCN Packaging

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PCN Assembly/Origin

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Customers Also Interested in

Recommended Products

 <b>FDMC86106LZ MOS</b> Fairchild (onsemi)	 <b>FDMC86160ET100</b> onsemi MOSFET N-CH 100V 9A/43A POWER33	 <b>FDMC8588</b> onsemi MOSFET N-CH 25V 16.5A/40A PWR33	 <b>FDMC86139P</b> onsemi MOSFET P-CH 100V 4.4A/15A 8MLP	 <b>FDMC8588A</b> onsemi MOSFET N-CH	 <b>FDMC8588</b> Fairchild Semiconductor POWER FIELD-EFFECT TRANSISTOR, 1
 <b>FDMC86106Z</b> AMI Semiconductor/onsemi	 <b>FDMC8588DC</b> onsemi MOSFET N CH 25V 40A POWER33	 <b>FDMC86102Z</b> Fairchild (onsemi)	 <b>FDMC86102</b> onsemi MOSFET N-CH 100V 7A/20A POWER33	 <b>FDMC86160</b> onsemi MOSFET N CH 100V 9A POWER33	 <b>FDMC8554 MOS</b> Fairchild (onsemi)
 <b>FDMC8588 MOS</b> Fairchild (onsemi)	 <b>FDMC86102L</b> onsemi MOSFET N-CH 100V 7A/18A 8MLP	 <b>FDMC8588DC</b> Fairchild Semiconductor POWER FIELD-EFFECT TRANSISTOR, 1	 <b>FDMC86106LZ</b> Fairchild Semiconductor MOSFET N-CH 100V 3.3A POWER33	 <b>FDMC86116LZ</b> onsemi MOSFET N-CH 100V 3.3A/7.5A 8MLP	 <b>FDMC86012</b> onsemi MOSFET N-CH 30V 23A POWER33

Shipment

Delivery Time

In-stock items can be shipped within 24 hours. Some parts will be arranged for delivery within 1-2 days from the date all items arrive at our warehouse. And Allelco ships order once a day at about 17:00, except Sunday. Once the goods are shipped, the estimated delivery time depends on the shipping methods and Delivery destination. The table below shows are the logistic time for some common countries.

Delivery Cost

- > Use your express account for shipment if you have one.
  - > Use our account for the shipment. Refer to the table below for the approximate charges.
- (Different time frame / countries / package size has different price.)

Delivery Method

- > Global Common Shipment by DHL / UPS / FedEx / TNT / EMS / SF we support.
- > Others more shipping ways, please get in touch with your customer manager.

Common Countries Logistic Time Reference		
Region	Country	Logistic Time(Day)
America	United States	5
	Brazil	7
Europe	Germany	5
	United Kingdom	4
	Italy	5
Oceania	Australia	6
	New Zealand	7
Asia	India	6
	Japan	7
Middle East	Israel	6

DHL & FedEx Shipment Charges Reference	
Shipment charges(KG)	Reference DHL(USD\$)
0.00kg-1.00kg	USD\$60.00
1.00kg-2.00kg	USD\$70.00
2.00kg-3.00kg	USD\$80.00

Note: The above table is for reference only. There may have some data bias for the uncontrollable factors. Contact us if you have any questions.

Payment Support

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