



FDMS86183

Manufacturer Part Number	FDMS86183
Manufacturer	onsemi
Allelco Part Number	32D-FDMS86183
ECAD Model	PCB Symbol, Footprint & 3D Mode
Parts Description	MOSFET N-CH 100V 51A 8PQFN
Package	8-PowerTDFN
Data sheet	FDMS86183.pdf
RoHs Status	ROHS3 Compliant



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Specifications

FDMS86183 Tech Specifications

FDMS86183 - 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	4V @ 90µA	Mounting Type	Surface Mount
Vgs (Max)	±20V	Input Capacitance (Ciss) (Max) @ Vds	1515 pF @ 50 V
Technology	MOSFET (Metal Oxide)	Gate Charge (Qg) (Max) @ Vgs	14 nC @ 6 V
Supplier Device Package	8-PQFN (5x6)	FET Type	N-Channel
Series	PowerTrench®	FET Feature	-
Rds On (Max) @ Id, Vgs	12.8mOhm @ 16A, 10V	Drive Voltage (Max Rds On, Min Rds On)	6V, 10V
Power Dissipation (Max)	63W (Tc)	Drain to Source Voltage (Vdss)	100 V
Package / Case	8-PowerTDFN	Current - Continuous Drain (Id) @ 25°C	51A (Tc)
Package	Tape & Reel (TR)	Base Product Number	FDMS86

Parts with Similar Specifications

The three parts on the right have similar specifications to onsemi FDMS86183

Product Attribute	NO PICTURE			
Part Number	FDMS86183	FDMS86150A	FDMS86200DC	FDMS8622
Manufacturer	onsemi	onsemi	onsemi	Fairchild Semiconductor
Rds On (Max) @ Id, Vgs	12.8mOhm @ 16A, 10V	4.85mOhm @ 16A, 10V	17mOhm @ 9.3A, 10V	56mOhm @ 4.8A, 10V
Operating Temperature	-55°C ~ 150°C (TJ)	-55°C ~ 150°C (TJ)	-55°C ~ 150°C (TJ)	-55°C ~ 150°C (TJ)
Drive Voltage (Max Rds On, Min Rds On)	6V, 10V	6V, 10V	6V, 10V	6V, 10V
Vgs (Max)	±20V	±20V	±20V	±20V
Vgs(th) (Max) @ Id	4V @ 90µA	4V @ 250µA	4V @ 250µA	4V @ 250µA
Supplier Device Package	8-PQFN (5x6)	Power56	8-PQFN (5x6)	8-PQFN (5x6)
Package	Tape & Reel (TR)	Tape & Reel (TR)	Tape & Reel (TR)	Bulk
Drain to Source Voltage (Vdss)	100 V	100 V	150 V	100 V
Mounting Type	Surface Mount	Surface Mount	Surface Mount	Surface Mount
Package / Case	8-PowerTDFN	8-PowerTDFN	8-PowerTDFN	8-PowerTDFN
Base Product Number	FDMS86	-	FDMS86200	-
Input Capacitance (Ciss) (Max) @ Vds	1515 pF @ 50 V	4665 pF @ 50 V	2955 pF @ 75 V	400 pF @ 50 V
Current - Continuous Drain (Id) @ 25°C	51A (Tc)	16A (Ta), 60A (Tc)	9.3A (Ta), 28A (Tc)	4.8A (Ta), 16.5A (Tc)
Power Dissipation (Max)	63W (Tc)	2.7W (Ta), 113W (Tc)	3.2W (Ta), 125W (Tc)	2.5W (Ta), 31W (Tc)
FET Feature	-	-	-	-
Technology	MOSFET (Metal Oxide)	MOSFET (Metal Oxide)	MOSFET (Metal Oxide)	MOSFET (Metal Oxide)
Series	PowerTrench®	PowerTrench®	Dual Cool™, PowerTrench®	PowerTrench®
Gate Charge (Qg) (Max) @ Vgs	14 nC @ 6 V	66 nC @ 10 V	42 nC @ 10 V	7 nC @ 10 V
FET Type	N-Channel	N-Channel	N-Channel	N-Channel

FDMS86183 Datasheet PDF

Download FDMS86183 pdf datasheets and onsemi documentation for FDMS86183 - onsemi.

Datasheets

FDMS86183.pdf

Environmental Information

onsemi REACH.pdf

onsemi RoHS.pdf

PCN Design/Specification

PCN Packaging







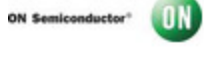
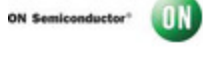

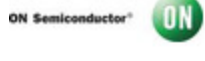
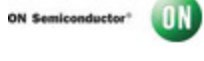

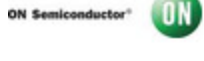



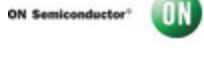

Mult Devices 24/Oct/2017.pdf

PCN Assembly/Origin

Mult Dev A/T 17/Jun/2021.pdf

Customers Also Interested in

Recommended Products

 FDMS86150A onsemi FET 100V 4.85 MOHM PQFN56	 FDMS86200DC onsemi MOSFET N-CH 150V 9.3A DLCOOL56	 FDMS8622 Fairchild Semiconductor POWER FIELD-EFFECT TRANSISTOR, 4	 FDMS86105 onsemi MOSFET N-CH 100V 6A/26A 8PQFN	 FDMS86201 onsemi MOSFET N-CH 120V 11.6A/49A 8PQFN	 FDMS86181 onsemi MOSFET N-CH 100V 44A/124A 8PQFN
 FDMS8622 onsemi MOSFET N-CH 100V 4.8A/16.5A 8QFN	 FDMS86150 onsemi MOSFET N-CH 100V 16A POWER56	 FDMS86152 Fairchild Semiconductor POWER FIELD-EFFECT TRANSISTOR, 1	 FDMS86163P onsemi MOSFET P-CH 100V 7.9A/50A 8PQFN	 FDMS86250 onsemi MOSFET N-CH 150V 6.7A/20A 8PQFN	 FDMS86200 MOS Fairchild (onsemi)
 FDMS86252 onsemi MOSFET N-CH 150V 4.6A/16A 8PQFN	 FDMS86152 onsemi MOSFET N-CH 100V 14A/45A POWER56	 FDMS86182 onsemi MOSFET N-CH 100V 78A 8PQFN	 FDMS86180 onsemi MOSFET N-CH 100V 151A POWER56	 FDMS86200 onsemi MOSFET N-CH 150V 9.6A/35A 8PQFN	 FDMS86202 onsemi MOSFET N-CH 120V 13.5A POWER56

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.

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The payment method can be chosen from the methods shown below:
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