



Image may be representation.  
See specifications for product details.



## FDS86242

|                          |                                 |
|--------------------------|---------------------------------|
| Manufacturer Part Number | <b>FDS86242</b>                 |
| Manufacturer             | <b>onsemi</b>                   |
| Allelco Part Number      | 32D-FDS86242                    |
| ECAD Model               | PCB Symbol, Footprint & 3D Mode |
| Parts Description        | MOSFET N-CH 150V 4.1A 8SOIC     |
| Package                  | 8-SOIC (0.154", 3.90mm Width)   |
| Data sheet               | <b>FDS86242.pdf</b>             |
| RoHs Status              | <b>ROHS3 Compliant</b>          |

**Get a Quote**

FDS86242 - onsemi.New Original in Stock. Download Linear Technology FDS86242 datasheet/specifications on AllelcoElec.com.  
Request a quote for FDS86242, please send us email: [info@allelco.com](mailto:info@allelco.com)

## Specifications

FDS86242 Tech Specifications

FDS86242 - 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 @ 250µA                    | Mounting Type                          | Surface Mount      |
| Vgs (Max)               | ±20V                          | Input Capacitance (Ciss) (Max) @ Vds   | 760 pF @ 75 V      |
| Technology              | MOSFET (Metal Oxide)          | Gate Charge (Qg) (Max) @ Vgs           | 13 nC @ 10 V       |
| Supplier Device Package | 8-SOIC                        | FET Type                               | N-Channel          |
| Series                  | PowerTrench®                  | FET Feature                            | -                  |
| Rds On (Max) @ Id, Vgs  | 67mOhm @ 4.1A, 10V            | Drive Voltage (Max Rds On, Min Rds On) | 6V, 10V            |
| Power Dissipation (Max) | 2.5W (Ta), 5W (Tc)            | Drain to Source Voltage (Vdss)         | 150 V              |
| Package / Case          | 8-SOIC (0.154", 3.90mm Width) | Current - Continuous Drain (Id) @ 25°C | 4.1A (Ta)          |
| Package                 | Tape & Reel (TR)              | Base Product Number                    | FDS86              |

## Parts with Similar Specifications

The three parts on the right have similar specifications to onsemi FDS86242

| Product Attribute                      |                               |                               |                               |                               |
|--|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Part Number                            | FDS86242                      | FDS86141                      | FDS86540                      | FDS86140                      |
| Manufacturer                           | onsemi                        | onsemi                        | Fairchild Semiconductor       | Fairchild Semiconductor       |
| Drain to Source Voltage (Vdss)         | 150 V                         | 100 V                         | 60 V                          | 100 V                         |
| FET Feature                            | -                             | -                             | -                             | -                             |
| Current - Continuous Drain (Id) @ 25°C | 4.1A (Ta)                     | 7A (Ta)                       | 18A (Ta)                      | 11.2A (Ta)                    |
| Drive Voltage (Max Rds On, Min Rds On) | 6V, 10V                       | 6V, 10V                       | 8V, 10V                       | 6V, 10V                       |
| Base Product Number                    | FDS86                         | FDS86                         | -                             | -                             |
| Vgs (Max)                              | ±20V                          | ±20V                          | ±20V                          | ±20V                          |
| Gate Charge (Qg) (Max) @ Vgs           | 13 nC @ 10 V                  | 16.5 nC @ 10 V                | 90 nC @ 10 V                  | 41 nC @ 10 V                  |
| Supplier Device Package                | 8-SOIC                        | 8-SOIC                        | 8-SOIC                        | 8-SOIC                        |
| Series                                 | PowerTrench®                  | PowerTrench®                  | PowerTrench®                  | PowerTrench®                  |
| Operating Temperature                  | -55°C ~ 150°C (TJ)            | -55°C ~ 150°C (TJ)            | -55°C ~ 150°C (TJ)            | -55°C ~ 150°C (TJ)            |
| Rds On (Max) @ Id, Vgs                 | 67mOhm @ 4.1A, 10V            | 23mOhm @ 7A, 10V              | 4.5mOhm @ 18A, 10V            | 9.8mOhm @ 11.2A, 10V          |
| Technology                             | MOSFET (Metal Oxide)          | MOSFET (Metal Oxide)          | MOSFET (Metal Oxide)          | MOSFET (Metal Oxide)          |
| Input Capacitance (Ciss) (Max) @ Vds   | 760 pF @ 75 V                 | 934 pF @ 50 V                 | 6410 pF @ 30 V                | 2580 pF @ 50 V                |
| Package / Case                         | 8-SOIC (0.154", 3.90mm Width) | 8-SOIC (0.154", 3.90mm Width) | 8-SOIC (0.154", 3.90mm Width) | 8-SOIC (0.154", 3.90mm Width) |
| FET Type                               | N-Channel                     | N-Channel                     | N-Channel                     | N-Channel                     |
| Mounting Type                          | Surface Mount                 | Surface Mount                 | Surface Mount                 | Surface Mount                 |
| Package                                | Tape & Reel (TR)              | Tape & Reel (TR)              | Bulk                          | Bulk                          |
| Power Dissipation (Max)                | 2.5W (Ta), 5W (Tc)            | 2.5W (Ta)                     | 2.5W (Ta), 5W (Tc)            | 2.5W (Ta), 5W (Tc)            |
| Vgs(th) (Max) @ Id                     | 4V @ 250µA                    | 4V @ 250µA                    | 4V @ 250µA                    | 4V @ 250µA                    |

## FDS86242 Datasheet PDF

Download FDS86242 pdf datasheets and onsemi documentation for FDS86242 - onsemi.

### Datasheets

[FDS86242.pdf](#)

### Environmental Information

[onsemi RoHS.pdf](#)

### PCN Design/Specification



Logo 17/Aug/2017.pdf

## PCN Packaging



Mult Devices 24/Oct/2017.pdf



Mult MSL1 Pkg Rev 20/Dec/2018.pdf

## PCN Assembly/Origin



Qualify 2nd supplier 13/Aug/2020.pdf

## Customers Also Interested in

### Recommended Products



#### FDS86141

onsemi  
MOSFET N-CH 100V 7A 8SOIC



#### FDS86240 MOS

Fairchild (onsemi)



#### FDS86540

Fairchild Semiconductor  
SMALL SIGNAL FIELD-EFFECT  
TRANSI



#### FDS86140

Fairchild Semiconductor  
SMALL SIGNAL FIELD-EFFECT  
TRANSI



#### FDS86141-NL

Fairchild (onsemi)



#### FDS86252

onsemi  
MOSFET N-CH 150V 4.5A 8SOIC



#### FDS86240-NL

Fairchild (onsemi)



#### FDS86140 MOS

Fairchild (onsemi)



#### FDS8670

onsemi  
MOSFET N-CH 30V 21A 8SOIC



#### FDS86267P

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MOSFET P-CH 150V 2.2A 8SOIC



#### FDS86141 MOS

Fairchild (onsemi)



#### FDS86140-NL

Fairchild (onsemi)



#### FDS86540

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MOSFET N-CH 60V 18A 8SOIC



#### FDS86240

onsemi  
MOSFET N-CH 150V 7.5A 8SOIC



#### FDS86140

onsemi  
MOSFET N-CH 100V 11.2A 8SOIC



#### FDS8670

Fairchild Semiconductor  
MOSFET N-CH 30V 21A 8SOIC



#### FDS8638

onsemi  
MOSFET N-CH 40V 18A 8SOIC



#### FDS86267P

Fairchild Semiconductor  
MOSFET P-CH 150V 2.2A 8SOIC

## 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

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

Wire Transfer (T/T, Bank Transfer), Western Union, Credit card, PayPal.



## Your Faithful Supply Chain Partner -



Efficient Supply  
Management



Cost-Saving  
Procurement



Fast Sourcing &  
Delivery

Contact us if you have any questions.



Phone

+00852 9146 4856



Email

info@allelco.com

## Certifications & Memberships



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