



# FGAF40S65AQ

|                          |                                 |
|--------------------------|---------------------------------|
| Manufacturer Part Number | <b>FGAF40S65AQ</b>              |
| Manufacturer             | <b>onsemi</b>                   |
| Allelco Part Number      | 32D-FGAF40S65AQ                 |
| ECAD Model               | PCB Symbol, Footprint & 3D Mode |
| Parts Description        | 650V 40A FS4 SA IGBT            |
| Package                  | TO-3P-3 Full Pack               |
| Data sheet               | <b>FGAF40S65AQ.pdf</b>          |
| RoHs Status              | ROHS3 Compliant                 |



**Get a Quote**

FGAF40S65AQ - onsemi.New Original in Stock. Download Linear Technology FGAF40S65AQ datasheet/specifications on AllelcoElec.com.

Request a quote for FGAF40S65AQ, please send us email: [info@allelco.com](mailto:info@allelco.com)

## Specifications

FGAF40S65AQ Tech Specifications

FGAF40S65AQ - onsemi technical specifications, attributes, parameters

| Product Attribute                           | Attribute Value        | Product Attribute                | Attribute Value    |
|---|------------------------|----------------------------------|--------------------|
| Manufacturer                                | onsemi                 | Package / Case                   | TO-3P-3 Full Pack  |
| Voltage - Collector Emitter Breakdown (Max) | 650 V                  | Package                          | Tube               |
| Vce(on) (Max) @ Vge, Ic                     | 2.1V @ 15V, 40A        | Operating Temperature            | -55°C ~ 175°C (TJ) |
| Test Condition                              | 400V, 10A, 60hm, 15V   | Mounting Type                    | Through Hole       |
| Td (on/off) @ 25°C                          | 17.8ns/81.6ns          | Input Type                       | Standard           |
| Switching Energy                            | 132μJ (on), 62μJ (off) | IGBT Type                        | Trench Field Stop  |
| Supplier Device Package                     | TO-3PF-3               | Gate Charge                      | 75 nC              |
| Series                                      | -                      | Current - Collector Pulsed (Icm) | 160 A              |
| Reverse Recovery Time (trr)                 | 274 ns                 | Current - Collector (Ic) (Max)   | 80 A               |
| Power - Max                                 | 94 W                   | Base Product Number              | FGAF40             |

## Parts with Similar Specifications

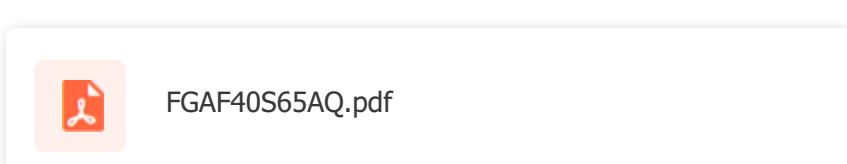
The three parts on the right have similar specifications to onsemi FGAF40S65AQ

| Product Attribute                           | NO PICTURE             |                         |                         |                         |
|---|------------------------|-------------------------|-------------------------|-------------------------|
| Part Number                                 | FGAF40S65AQ            | FGA90N33ATDTU           | FGAF20N60SMD            | FGAF40N60UFDTU          |
| Manufacturer                                | onsemi                 | Fairchild Semiconductor | onsemi                  | onsemi                  |
| Supplier Device Package                     | TO-3PF-3               | TO-3P                   | TO-3PF                  | TO-3PF                  |
| Mounting Type                               | Through Hole           | Through Hole            | Through Hole            | Through Hole            |
| Package / Case                              | TO-3P-3 Full Pack      | TO-3P-3, SC-65-3        | TO-3P-3 Full Pack       | TO-3P-3 Full Pack       |
| Gate Charge                                 | 75 nC                  | 95 nC                   | 64 nC                   | 77 nC                   |
| Reverse Recovery Time (trr)                 | 274 ns                 | 23 ns                   | 26.7 ns                 | 95 ns                   |
| Operating Temperature                       | -55°C ~ 175°C (TJ)     | -55°C ~ 150°C (TJ)      | -55°C ~ 175°C (TJ)      | -55°C ~ 150°C (TJ)      |
| Power - Max                                 | 94 W                   | 223 W                   | 75 W                    | 100 W                   |
| Package                                     | Tube                   | Bulk                    | Tube                    | Tube                    |
| Voltage - Collector Emitter Breakdown (Max) | 650 V                  | 330 V                   | 600 V                   | 600 V                   |
| Series                                      | -                      | -                       | -                       | -                       |
| IGBT Type                                   | Trench Field Stop      | Trench                  | Field Stop              | -                       |
| Base Product Number                         | FGAF40                 | FGA90                   | FGAF20                  | FGAF40                  |
| Switching Energy                            | 132μJ (on), 62μJ (off) | -                       | 452μJ (on), 141μJ (off) | 470μJ (on), 130μJ (off) |
| Test Condition                              | 400V, 10A, 60hm, 15V   | -                       | 400V, 20A, 100hm, 15V   | 300V, 20A, 100hm, 15V   |
| Input Type                                  | Standard               | Standard                | Standard                | Standard                |
| Vce(on) (Max) @ Vge, Ic                     | 2.1V @ 15V, 40A        | 1.4V @ 15V, 20A         | 1.7V @ 15V, 20A         | 3V @ 15V, 20A           |
| Current - Collector Pulsed (Icm)            | 160 A                  | 330 A                   | 60 A                    | 160 A                   |
| Td (on/off) @ 25°C                          | 17.8ns/81.6ns          | -                       | 12ns/91ns               | 15ns/65ns               |
| Current - Collector (Ic) (Max)              | 80 A                   | 90 A                    | 40 A                    | 40 A                    |

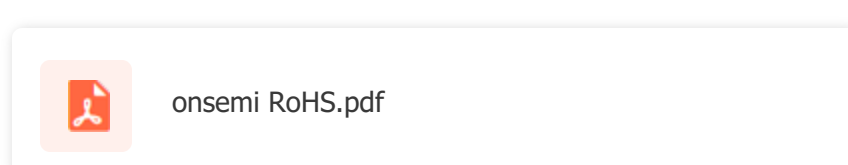
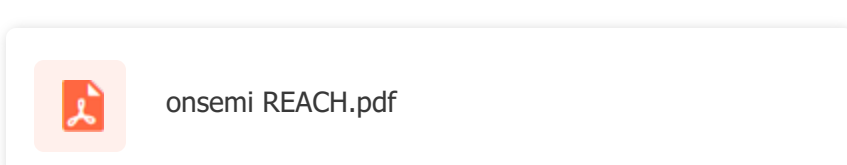
## FGAF40S65AQ Datasheet PDF

Download FGAF40S65AQ pdf datasheets and onsemi documentation for FGAF40S65AQ - onsemi.

### Datasheets



### Environmental Information



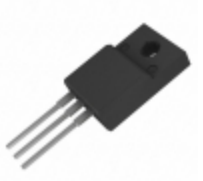
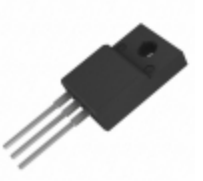
















### PCN Assembly/Origin

PCN Design/Specification

Customers Also Interested in

Recommended Products

|  |  |  |   |   |   |
|--|--|--|---|---|---|
| <br><b>FGA90N33ATDTU</b><br>Fairchild Semiconductor<br>IGBT, 90A, 330V, N-CHANNEL | <br><b>FGAF20N60SMD</b><br>onsemi<br>IGBT FIELD STOP 600V 40A TO3PF   | <br><b>FGAF40N60UFDTU</b><br>onsemi<br>IGBT 600V 40A TO3PF      | <br><b>FGAF40N60UFTU</b><br>onsemi<br>IGBT 600V 40A TO3PF         | <br><b>FGA70N33BTDU</b><br>onsemi<br>IGBT 330V 149W TO3P | <br><b>FGAF40N60UFTU</b><br>Fairchild Semiconductor<br>INSULATED GATE BIPOLAR TRANSISTO  |
| <br><b>FGA70N33BTDLDTU</b><br>Fairchild (onsemi)                                  | <br><b>FGAF40N60UFD</b><br>Fairchild (onsemi)                         | <br><b>FGA70N33BTD</b><br>Fairchild (onsemi)                    | <br><b>FGA6560WDF</b><br>onsemi<br>IGBT TRENCH/FS 650V 120A TO3PN | <br><b>FGAF40N60UF</b><br>Fairchild (onsemi)             | <br><b>FGAF40N60UFDTU</b><br>Fairchild Semiconductor<br>INSULATED GATE BIPOLAR TRANSISTO |
| <br><b>FGAF40N60UFDTU-NL</b><br>Fairchild (onsemi)                              | <br><b>FGAF40N60SMD</b><br>onsemi<br>IGBT FIELD STOP 600V 80A TO3PF | <br><b>FGA90N33ATDTU</b><br>onsemi<br>IGBT 330V 90A 223W TO3P | <br><b>FGA90N33ATTU</b><br>onsemi<br>IGBT 330V 90A 223W TO3P    | <br><b>FGA90N33ATD</b><br>Fairchild (onsemi)           | <br><b>FGA70N33B</b><br>Fairchild (onsemi)   |

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 -

|  |  |   |
|--|--|---|
| <br>Efficient Supply Management | <br>Cost-Saving Procurement | <br>Fast Sourcing & Delivery |
|--|--|---|

Contact us if you have any questions.

|  |  |
|--|--|
| <br>Phone<br>+00852 9146 4856 | <br>Email<br>info@allelco.com |
|--|--|

Certifications & Memberships



View More

Contact us

Address: Flat/Rm C 13/F Harvard Commercial Building 105-111 Thomson Road, Wan Chai, Hong Kong  
Phone: +00852 9146 4856  
Fax: +00852 3010 8510  
Email: info@Allelco.com