

# F-Series

## 1W Isolated DC/DC-Converters



- Low Ripple and Noise
- 3kVDC Isolation
- 6 Pin SIP Package
- Dual Output

### Selection Guide (See Model Code Information on Page 27)

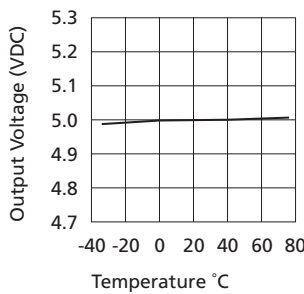
| Ordering Code | Nominal Input Voltage (VDC) | Input Current |                | Output Voltage (VDC) | Output Current (mA) | Efficiency at Full Load (%) |
|---------------|-----------------------------|---------------|----------------|----------------------|---------------------|-----------------------------|
|               |                             | No Load (mA)  | Full Load (mA) |                      |                     |                             |

### 3kVDC, Dual Output

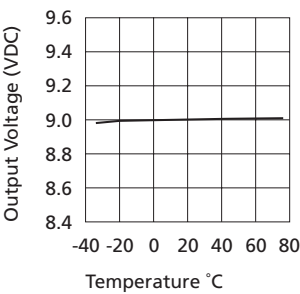
|         |    |    |     |     |      |    |
|---------|----|----|-----|-----|------|----|
| F-0505D | 5  | 15 | 286 | ±5  | ±100 | 70 |
| F-0509D | 5  | 20 | 274 | ±9  | ±55  | 73 |
| F-0512D | 5  | 22 | 267 | ±12 | ±42  | 75 |
| F-0515D | 5  | 25 | 260 | ±15 | ±34  | 77 |
| F-1205D | 12 | 15 | 119 | ±5  | ±100 | 70 |
| F-1209D | 12 | 15 | 111 | ±9  | ±55  | 75 |
| F-1212D | 12 | 12 | 108 | ±12 | ±42  | 77 |
| F-1215D | 12 | 12 | 104 | ±15 | ±34  | 80 |

### Typical Characteristics

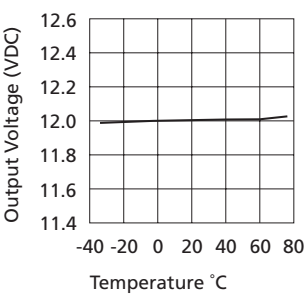
5V Models



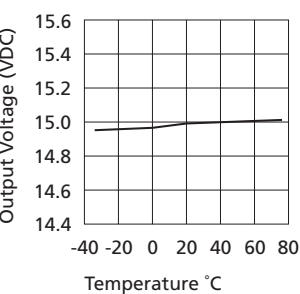
9V Models



12V Models



15V Models



# F-Series

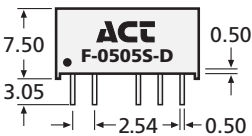
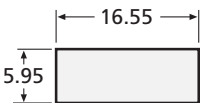
## 1W Isolated DC/DC-Converters



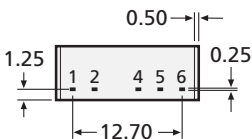
### Specifications – Typical at +25°C, Unless Otherwise Noted

|                                 |                     |                                 |                                               |
|---------------------------------|---------------------|---------------------------------|-----------------------------------------------|
| Voltage Range                   | ±10%                | Temperature Coefficient         | ±0.02% / °C                                   |
| Filter                          | Capacitors          | Efficiency                      | 72% to 82%                                    |
| Rated Voltage                   | 3000 VDC            | Switching Frequency             | 90 kHz, typ.                                  |
| Leakage Current                 | 1 mA                | Operating Temperature (Ambient) | -40°C to +85°C                                |
| Resistance                      | 10 <sup>9</sup> Ω   | Storage Temperature             | -55°C to +125°C                               |
| Capacitance                     | 50 pF, typ.         | Derating                        | None Required                                 |
| Voltage Accuracy                | ±5%, Max.           | Humidity                        | Up to 90%, Non-condensing                     |
| Voltage Balance (Dual Outputs)  | ±1%                 | Cooling                         | Free-air Convection                           |
| Ripple and Noise (at 20 MHz BW) | 75 mVp-p, typ.      | Dimensions                      | 16.55 x 5.95 x 7.55 mm<br>0.65 x 0.23 x 0.30" |
| Short Circuit Protection        | Momentary           | Weight                          | 1.8 g                                         |
| Line Voltage Regulation         | ±1.2% / 1.0% of Vin | Case Material                   | Non-conductive Black Plastic                  |
| Load Voltage Regulation         | ±8%, load = 20-100% |                                 |                                               |

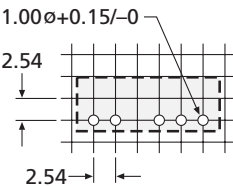
### SIP6 Package Style and Pinning (mm)



| Pin Connections |        |
|-----------------|--------|
| Pin #           | Dual   |
| 1               | +Vin   |
| 2               | -Vin   |
| 4               | -Vout  |
| 5               | Common |
| 6               | +Vout  |



#### Recommended Footprint Details



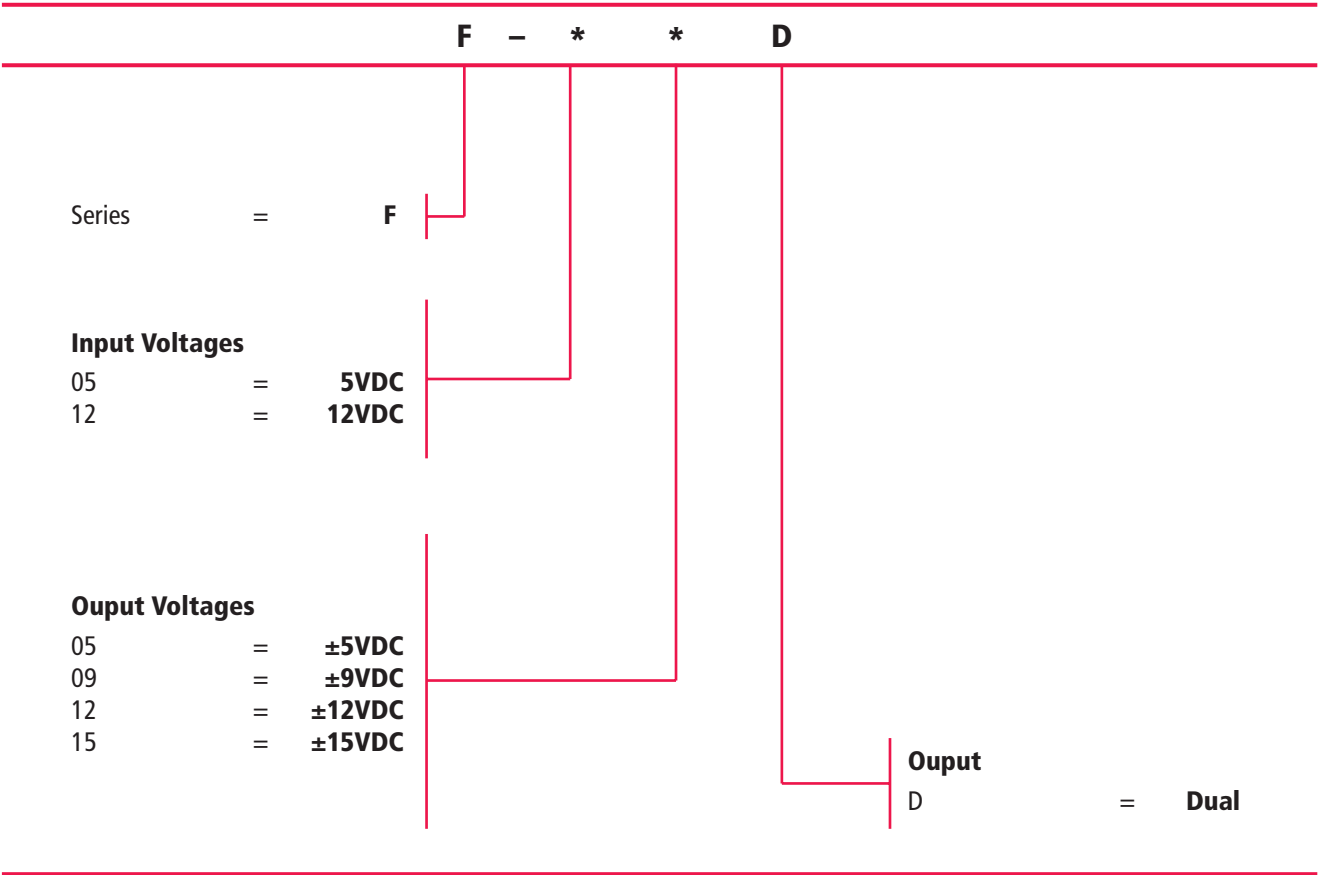
Tolerance:  
x.xx = ±0.25mm)

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## 1W Isolated DC/DC-Converters



### Model Code Information



**Ordering Examples:** For availability see Selection Guides on page 25

F-0512S-D      = F-series, 5VDC input, ±12VDC output, dual output, 3kVDC isolation, SIP7 package size

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