

**DC-DC Astra**  
**AS6R-xxSxxZC**  
**AS6R-xxDxxZC**



**Wide Input Voltage Range 6 Watt Dc-Dc Converter**

**FEATURES:**

2:1 Wide Input Voltage.

6 Watt 24PIN DIL Package.

Efficiency To 80%

PI Input Filter.

1500Vdc Isolation

MTBF:>1,500,000 hrs Operating Temperature:-40°C TO +85°C



**Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified**

| Part Number  | Input Voltage | Output Voltage | Output Current | Input Current |           | Efficiency |
|--------------|---------------|----------------|----------------|---------------|-----------|------------|
|              |               |                |                | NO LOAD       | FULL LOAD |            |
|              |               |                |                | Vdc           | Vdc       | mA         |
| AS6R-12S03ZC | 9-18          | 3.3            | 1000           | 7.5           | 405       | 70         |
| AS6R-12S05ZC | 9-18          | 5              | 1000           | 7.5           | 545       | 75         |
| AS6R-12S12ZC | 9-18          | 12             | 470            | 7.5           | 585       | 80         |
| AS6R-12S15ZC | 9-18          | 15             | 400            | 7.5           | 625       | 80         |
| AS6R-12D05ZC | 9-18          | ±5             | ±500           | 12            | 545       | 75         |
| AS6R-12D12ZC | 9-18          | ±12            | ±230           | 12            | 575       | 80         |
| AS6R-12D15ZC | 9-18          | ±15            | ±190           | 12            | 590       | 80         |
| AS6R-24S03ZC | 18-36         | 3.3            | 1000           | 5             | 195       | 70         |
| AS6R-24S05ZC | 18-36         | 5              | 1000           | 5             | 265       | 80         |
| AS6R-24S12ZC | 18-36         | 12             | 470            | 5             | 285       | 80         |
| AS6R-24S15ZC | 18-36         | 15             | 400            | 5             | 305       | 80         |
| AS6R-24D05ZC | 18-36         | ±5             | ±500           | 7.5           | 265       | 80         |
| AS6R-24D12ZC | 18-36         | ±12            | ±230           | 7.5           | 285       | 80         |
| AS6R-24D15ZC | 18-36         | ±15            | ±190           | 7.5           | 295       | 80         |
| AS6R-48S03ZC | 36-72         | 3.3            | 1000           | 2             | 98        | 70         |
| AS6R-48S05ZC | 36-72         | 5              | 1000           | 2             | 133       | 80         |
| AS6R-48S12ZC | 36-72         | 12             | 470            | 2             | 145       | 80         |
| AS6R-48S15ZC | 36-72         | 15             | 400            | 2             | 154       | 80         |
| AS6R-48D05ZC | 36-72         | ±5             | ±500           | 3             | 265       | 80         |
| AS6R-48D12ZC | 36-72         | ±12            | ±230           | 3             | 142       | 80         |

**Input Specifications**

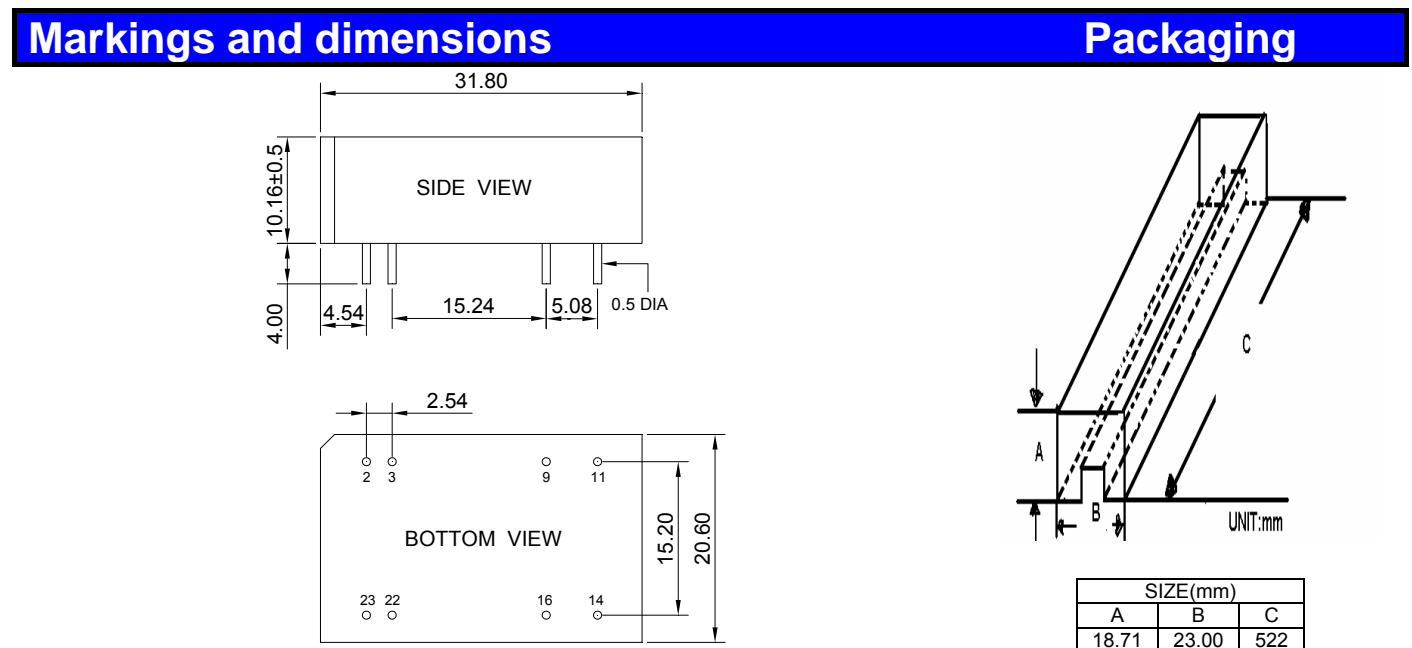
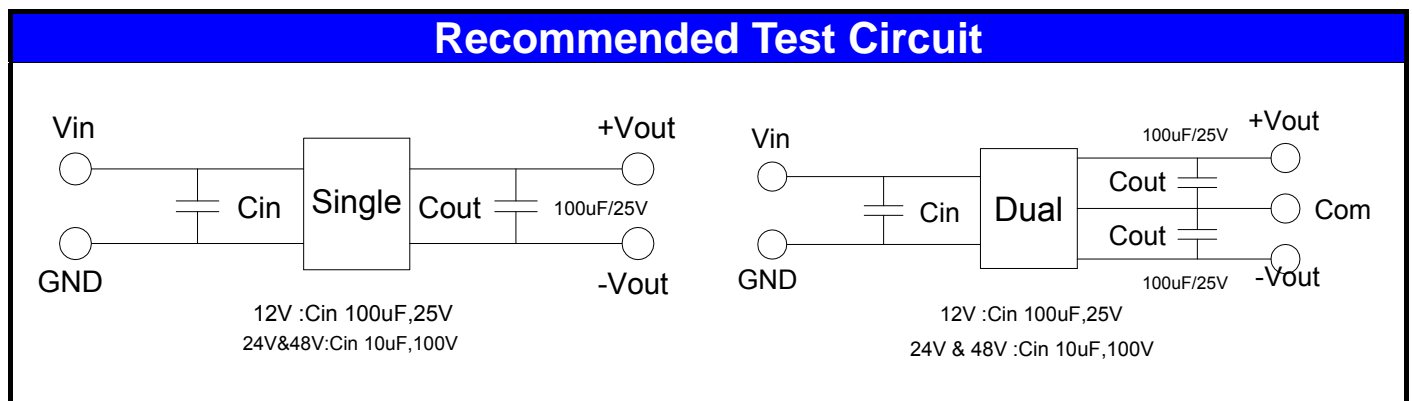
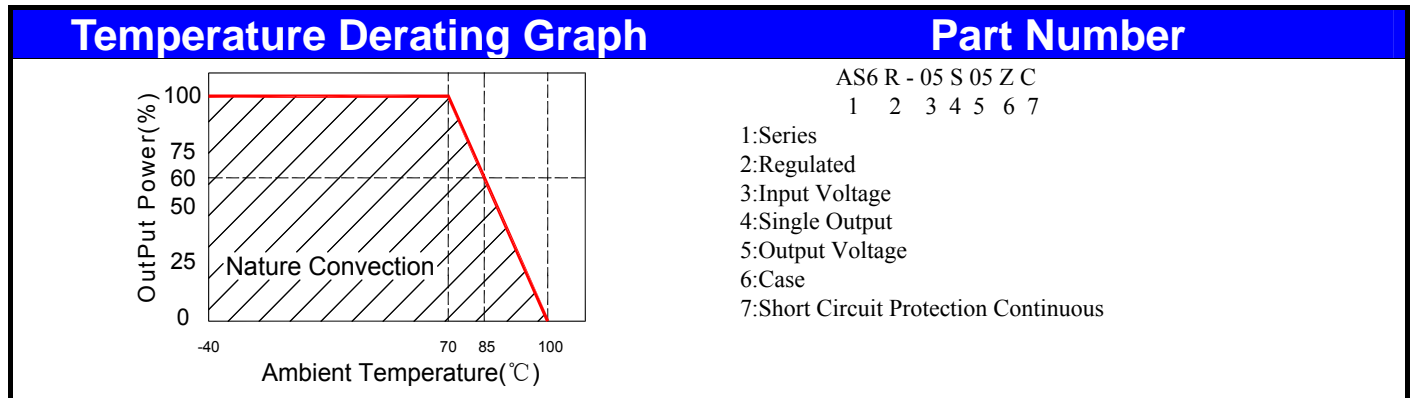
| Parameters           | Conditions | Min | Typ | Max | Units |
|----------------------|------------|-----|-----|-----|-------|
| <b>Voltage Types</b> |            |     |     | 2:1 |       |
| <b>Filter</b>        | Capacitor  |     |     |     |       |

**Output Specifications**

| Parameters                             | Conditions               | Min | Typ | Max  | Units |
|--|--------------------------|-----|-----|------|-------|
| <b>Voltage Tolerance</b>               |                          |     |     | ±2   | %     |
| <b>Short Circuit Protection</b>        | Continuous               |     |     |      |       |
| <b>Line Regulation</b>                 |                          |     |     | ±0.5 | %     |
| <b>Load Regulation</b>                 | Single (F.L To 10% Load) |     |     | ±0.5 | %     |
| <b>Load Regulation</b>                 | Dual (F.L To 1/4 Load)   |     |     | ±1.0 | %     |
| <b>Ripple &amp; Noise</b>              | BW=DC To 20MHz           |     |     | 100  | mVp-p |
| <b>Transient response setting time</b> | 50% load step change     |     | 350 |      | us    |

**General Specifications**

| Parameters                   | Conditions   | Min  | Typ               | Max | Units |
|------------------------------|--|------|-------------------|-----|-------|
| <b>Isolation Resistance</b>  | 500Vdc   | 1000 |                   |     | MΩ    |
| <b>Switching Frequency</b>   |  |      | 200               |     | KHz   |
| <b>Operating Temperature</b> |  | -40  |                   | 85  | °C    |
| <b>Humidity</b>              | Non Condensing   |      |                   | 95  | %     |
| <b>Cooling</b>               | Free air Convection  |      |                   |     |       |
| <b>Case material</b>         | Nickel Coated With Non-Conductive Base or Black Coated Copper With Non-Conductive Base |      |                   |     |       |
| <b>Weight</b>                |  |      | 16.2              |     | g     |
| <b>Dimensions</b>            |  |      | 31.80x20.60x10.16 |     | mm    |



| PIN Connection |      |        |       |       |       |       |
|----------------|------|--------|-------|-------|-------|-------|
| PIN            | 2.3  | 9      | 11    | 14    | 16    | 22.23 |
| SINGLE         | -Vin | NO PIN | NC    | +Vout | -Vout | +Vin  |
| DUAL           | -Vin | COM    | -Vout | +Vout | COM   | +Vin  |