

BC02 Series



Features :

- Efficiency Up to 81%
- Miniature Package
- I/O Isolation 1000VDC
- SMT Technology
- Low Cost



Model List

| Model Number | Input Voltage (VDC) | Output Voltage (VDC) | Output Current (mA) | Efficiency @ Max. Load % (Typ.) |
|--------------|---------------------|----------------------|---------------------|---------------------------------|
| BC02-05S3V3 | 4.5~5.5 | 3.3 | 600 | 73 |
| BC02-05S05V | | 5 | 400 | 76 |
| BC02-05S12V | | 12 | 165 | 80 |
| BC02-05S15V | | 15 | 130 | 80 |
| BC02-05D05V | | ±5 | ±200 | 76 |
| BC02-05D12V | | ±12 | ±80 | 80 |
| BC02-05D15V | | ±15 | ±65 | 80 |
| BC02-12S3V3 | 10.8~13.2 | 3.3 | 600 | 73 |
| BC02-12S05V | | 5 | 400 | 78 |
| BC02-12S12V | | 12 | 165 | 80 |
| BC02-12S15V | | 15 | 130 | 80 |
| BC02-12D05V | | ±5 | ±200 | 78 |
| BC02-12D12V | | ±12 | ±80 | 82 |
| BC02-12D15V | | ±15 | ±65 | 82 |
| BC02-24S3V3 | 21.6~26.4 | 3.3 | 600 | 73 |
| BC02-24S05V | | 5 | 400 | 78 |
| BC02-24S12V | | 12 | 165 | 81 |
| BC02-24S15V | | 15 | 130 | 82 |
| BC02-24D05V | | ±5 | ±200 | 78 |
| BC02-24D12V | | ±12 | ±80 | 81 |
| BC02-24D15V | | ±15 | ±65 | 82 |

V1.0.0 2013

Input Specifications

| | | |
|-----------------------------|---------------|----------|
| Input Filter | | Pi Type |
| Surge Voltage (100 ms max.) | 5Vin Models: | 9V max. |
| | 12Vin Models: | 18V max. |
| | 24Vin Models: | 30V max. |

Output Specifications

| | | |
|--|-------------------|------------------|
| Output Power | | 2W max. |
| Voltage Set Accuracy | | ±3% |
| Line Regulation (Low Line, High Line at Full Load) | | ±1.5% |
| Load Regulation (0% to 100% Full Load) | Single: | ±10% |
| | Dual: | ±10% |
| Ripple and Noise (20MHz Bandwidth) | 3.3, 5VDC Models: | 100mVpk-pk max. |
| | Others Models: | 1%Voutpk-pk max. |
| Minimum Load | | 0% |

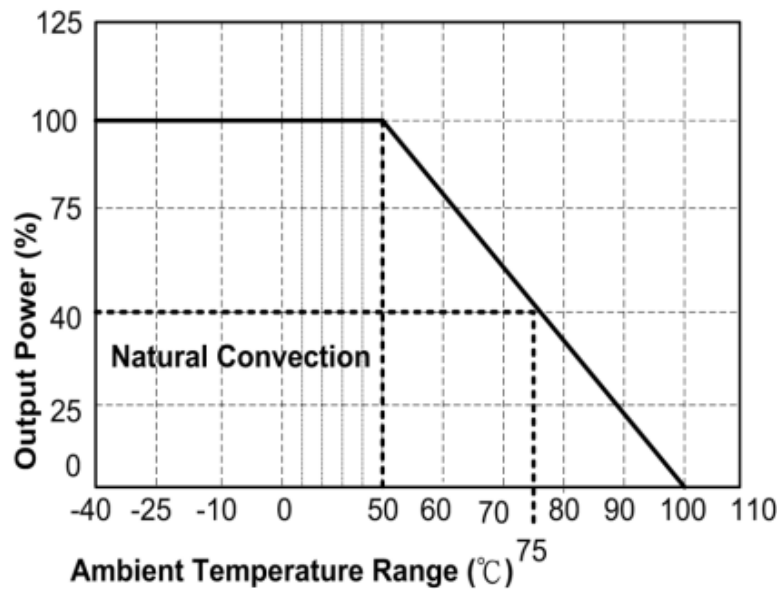
Environmental Specifications

| | | |
|---------------------------------------|--|--------------------------------|
| Operating Temperature Range (Ambient) | | -25°C to +70°C (with Derating) |
| Maximum Case Temperature | | +90°C |
| Storage Temperature Range | | -40°C to +125°C |
| Cooling | | Free-air Convection |
| Temperature Coefficient | | ±0.05%/°C max. |
| Humidity | | 95% |

General Specifications

| | | |
|--|-----------------------|--|
| Over Load Protection (% of Full Load at Nominal Vin) | | >110% typ. |
| MTBF(MIL-HDBK-217F, at +25°C, Ground Benign) | | >15×10 ³ Hours |
| Isolation Voltage (60 sec.) | Input/Output: | 1000VDC |
| Isolation Resistance | Input/Output(500VDC): | >1000Mohm |
| Switching Frequency (Fixed) | | 70kHz typ. (Pulse Width Modulation PWM) |

Derating Graph

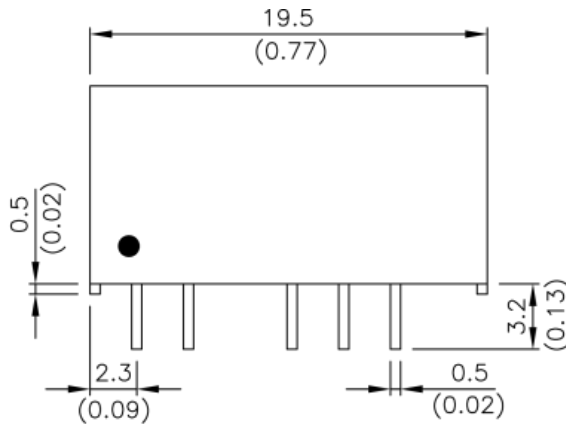


If you need more detailed information,
please contact us via email at sales@mail.longsun.tw

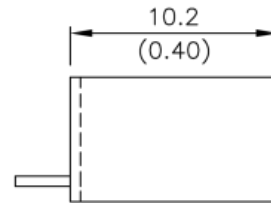
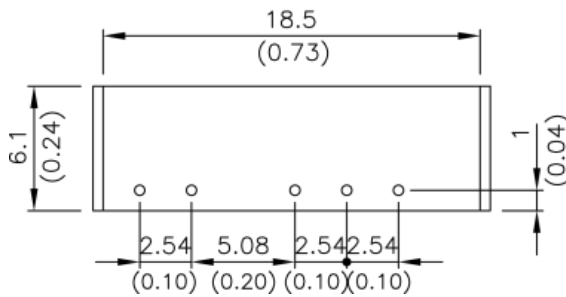
Physical Specifications

| | |
|--|------------------------------|
| Case Material | Non-Conductive Black Plastic |
| Potting | Flammability to UL94V-0 |
| Dimension | 0.77"×0.3"×0.4" |
| Weight | 3g(0.11oz) |
| Soldering Temperature | max. 260°C/10s |
| Environmental Compliance Certification | Reach RoHS |

Outline Dimensions



| Pin Connections | | |
|-----------------|--------|--------|
| Pin | Single | Dual |
| 1 | +Vin | +Vin |
| 2 | -Vin | -Vin |
| 4 | -Vout | -Vout |
| 5 | No Pin | Common |
| 6 | +Vout | +Vout |



Dimensions in [mm], () = Inch

Notes

1. All specifications are typical at $T_a=25^{\circ}\text{C}$, nominal input voltage, resistive load and rated output current unless otherwise noted.
2. All specifications are subject to change without notice.
3. Typical value is measured at nominal input voltage and no load.
4. Maximum value is measured at nominal input voltage and full load.
5. Typical value is measured at nominal input voltage and full load.