

10 WATT DC-DC CONVERTER

OBS- SC / WC 12
SINGLE/ DUAL CHANNEL

| Specifications | Model | | | | | |
|---|---|-----------|-----------|-----------|------------|------------|
| | OBS05SC12 | OBS12SC12 | OBS15SC12 | OBS24SC12 | OBS22WC12 | OBS23WC12 |
| OBS**SC/WC12 10WATTS/SINGLE/2 OUTPUT | | | | | | |
| Input Voltage DC[V] | 12 | 12 | 12 | 12 | 12 | 12 |
| Input Range DC[V] | 8-18 | | | | | |
| Inrush Current [A] | Not specified | | | | | |
| Input Range | | | | | | |
| at no load [mA](typical) | 32 | 37 | 39 | 42 | 44 | 47 |
| at full load[mA](typical) | 1042 | 1097 | 1040 | 1046 | 1097 | 1041 |
| Line Back Noise [mVp-p] (typical) | 500 | 500 | 500 | 500 | 500 | 500 |
| Efficiency [%] (typical) *1 | 80 | 82 | 84 | 86 | 82 | 84 |
| Output Voltage [V] | 5 | 12 | 15 | 24 | +12 -12 | +15 -15 |
| Output Current [A] | 2 | 0.9 | 0.70 | 0.45 | 0.045-0.45 | 0.035-0.35 |
| Voltage Tolerance +/-[mV](maximum) *2 | 100 | 240 | 300 | 480 | 240 240 | 300 300 |
| Ripple and Noise [mVp-p](maximum) *3 | 100 | | | | | |
| Regulation | | | | | | |
| a.Static Line Regulation [mV](maximum) | 25 | 60 | 75 | 120 | 60 | 75 |
| b.Dynamic Line Regulation +/-[mV](maximum) *4 | 100 | 100 | 100 | 100 | 200 | 300 |
| c.Static Load Regulation [mV](maximum) *5 | 25 | 60 | 75 | 120 | ±1500 | ±1500 |
| [mV](maximum) *6 | | | | | ±750 | ±750 |
| [mV](maximum) *7 | | | | | ±60 | ±75 |
| d.Temperature Coefficient *8 | 0.03% ^ρ Cmaximum) | | | | | |
| e.Drift[mV](maximum) *9 | 40 | 75 | 90 | 135 | 75 | 90 |
| f.Dynamic Load Regulation [mV](maximum) *10 | 200 | 400 | 300 | 400 | 300 | 400 |
| g.Recovery Time *4,*10 | 10mS(typical) | | | | | |
| Rise up time | 10mS(typical) at rated input/output | | | | | |
| Hold up time | Not specified | | | | | |
| Overcurrent Protection | Foldback/Current Limiting with automatic recovery at discontinuous short circuit conditions | | | | | |
| Overvoltage Protection | Not available | | | | | |
| Remote Sense | Not available | | | | | |
| Trimming of output voltage[mV] *11 | +250 | +250 | +350 | +650 | | |
| [mV] *12 | -250 | -900 | -1600 | -4000 | | |
| Input Fuse | Installed | | | | | |
| Operating Temperature | -20 to 71°C | | | | | |
| (derating) | 3.5%/°C(50°C to 71°C) (out of warranty >= 71 °C) | | | | | |
| Operating Humidity | 20-90%/RH(non-condensing) | | | | | |
| Storage Temperature | -20 to +85°C | | | | | |
| Storage Humidity | 20 to 90%/RH(non-condensing) | | | | | |
| Withstanding Voltage | Primary-Secondary AC500V for 1minute | | | | | |
| Isolation Resistance | Primary-Secondary 50MΩ(minimum) by DC500V insulation tester | | | | | |
| Capacitance(input-output) [pF](typical) | 4400 | | | | | |
| Vibration | 5-10Hz:10mm double amplitude,10-55Hz:19.6m/s ² ,20minutes' period for 60minutes each along X,Y,Z axes(non-operating) | | | | | |
| Shock | 294m/s ² | | | | | |
| Cooling | Convection | | | | | |
| Weight (typical) | open board type:14g | | | | | |

*1 at 25°C and rated input/output

*2 OBS**WC12 satisfies the above-mentioned specifications at the same load conditions on both outputs

*3 measured by a probe at the output connector at a 0 to 100MHz bandwidth

*4 when input voltage changed from 8V to 18V rapidly at rated input

*5 when output current changed from 0mA to rated current keeping the current of other output below minimum rated current at rated input

*6 when output current changed from minimum rated current to rated current keeping the current of other output above minimum rated current

*7 output current of both outputs changed from 0mA to rated current identically at rated input

*8 at -20 to +71°C

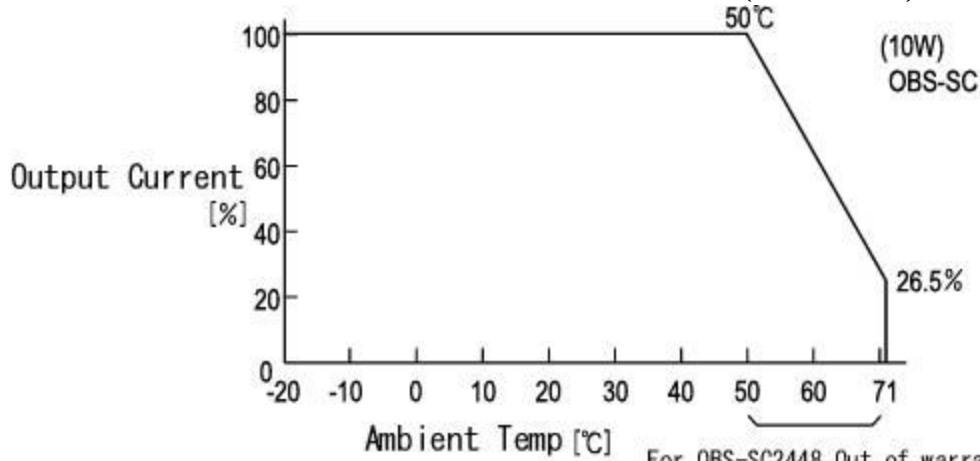
*9 for 7hour period after 1hour warm-up at 25 °C and rated input/output

*10 when output current changed from 25% of rated current to 75% rapidly at rated input

*11 to reduce output voltage,put a resistor between pin"0" and trimming pin

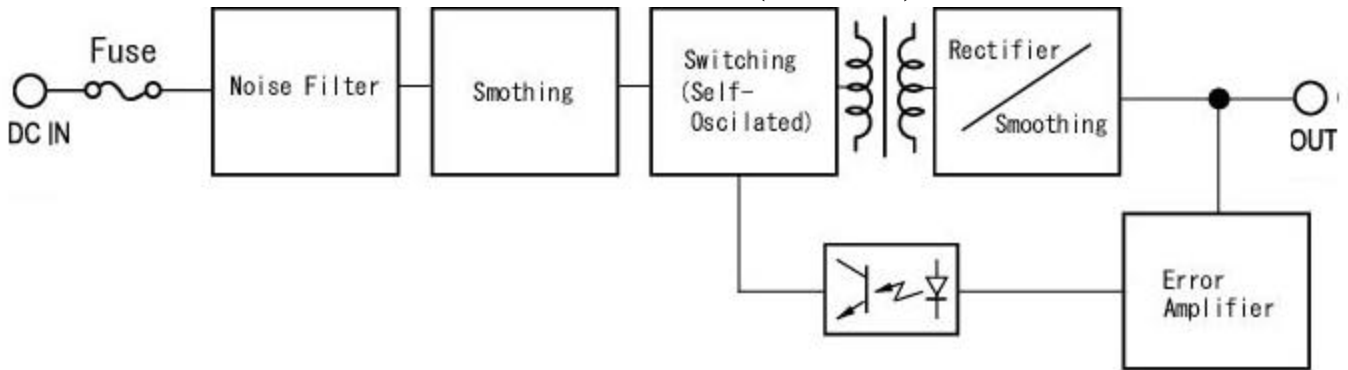
*12 to increase output voltage,put a resistor between pin"+" and trimming pin

DERATING CURVE (OBS-SC)

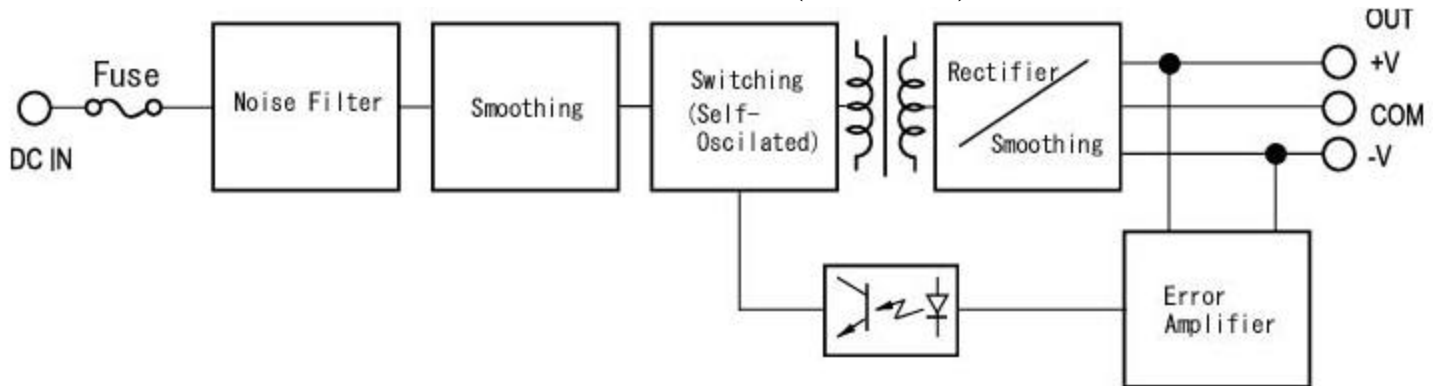


For OBS-SC2448 Out of warranty \geq DC63V input

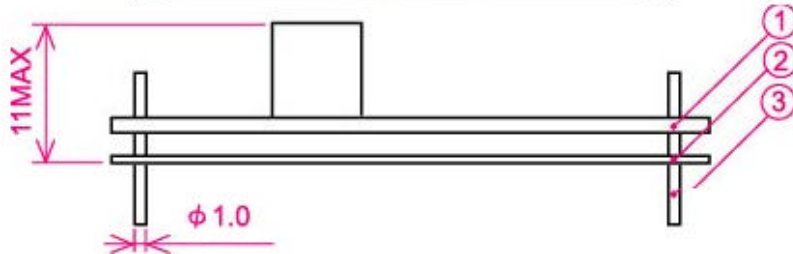
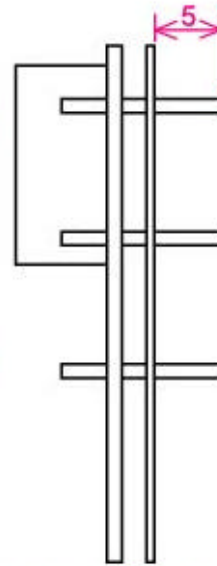
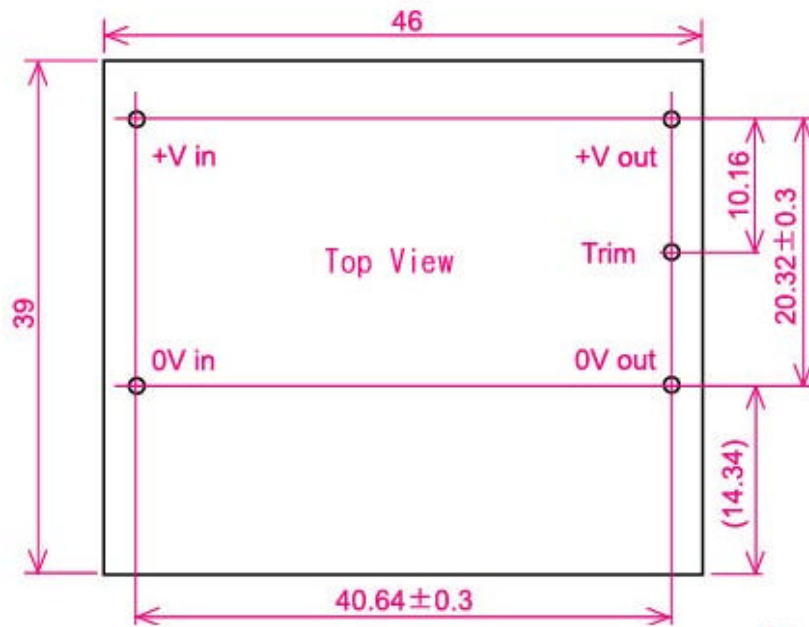
BLOCK DIAGRAM(OBS-SC)



BLOCK DIAGRAM(OBS-WC)

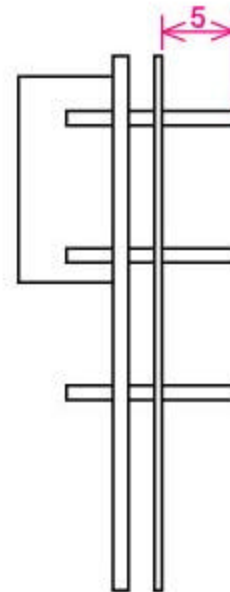
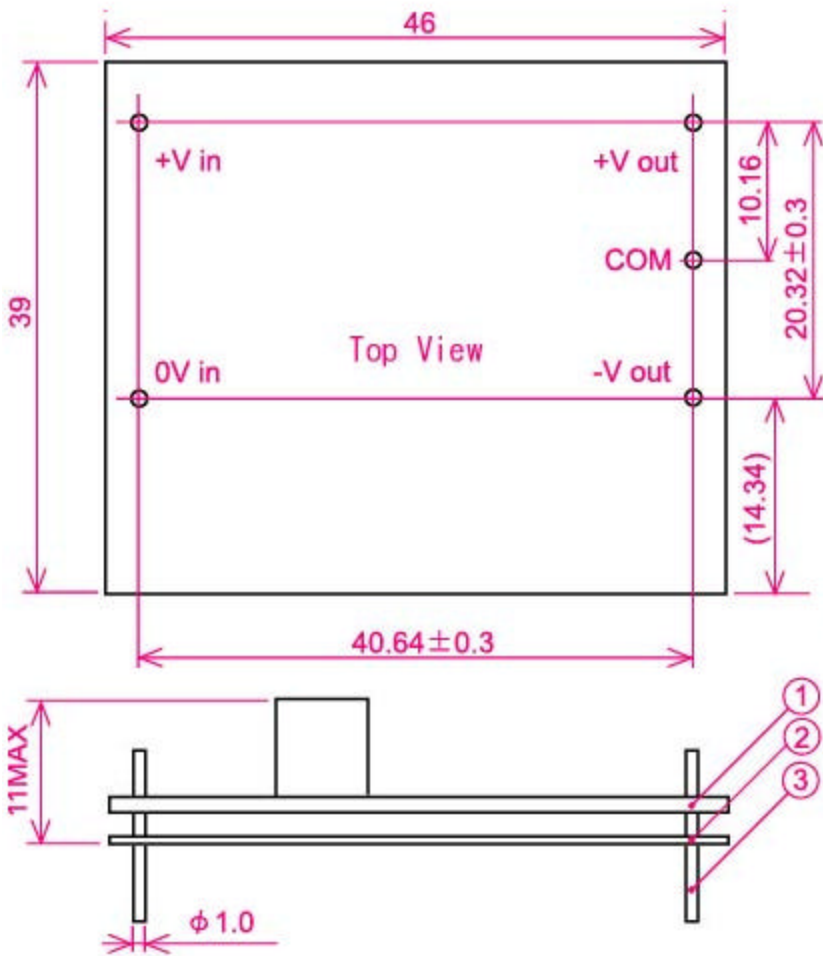


DIMENSION DIAGRAM(OBS-SC)



- ① Double-sided PCB FR4t=1.0
 - ② t=0.5 Insulator V0
 - ③ 1.0DIA PIN Material:BsB2700 1/2H
Copper Plating 1~3 μ m
Solder Plating 3~6 μ m
- * Tolerance ± 0.5

DIMENSION DIAGRAM(OBS-WC)



- ① Double-sided PCB FR4t=1.0
 - ② t=0.5 Insulator V0
 - ③ 1.0DIA PIN Material:BsB2700 1/2H
Copper Plating 1~3μm
Solder Plating 3~6μm
- * Tolerance ±0.5



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- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
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- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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