

SS SERIES

2~3W DC/DC CONVERTERS Single Output & Dual Outputs



H10×W21×L33 (mm)

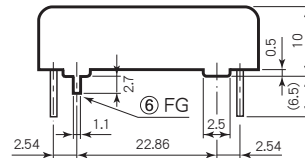
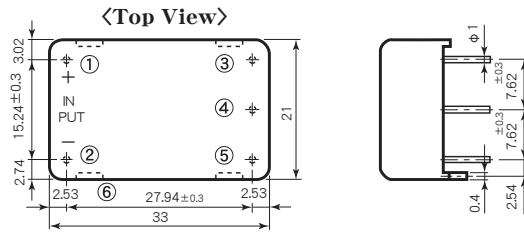
Features

- 10mm in Height
- Built-in Input Filter
- Input-Output Isolation
- High Efficiency 75~82%
- Wide Input Voltage Range
- High Reliability
- Low No Load Current
- 5 Sided Metal Shielding
- Operating Ambient Temp. -40°C~+85°C
- Max. Case Temperature +100°C
- Conformity to RoHS Directive
- Not built-in aluminum and tantalum electrolytic capacitor
- 高さ10mm
- 入力フィルタ内蔵
- 入出力間絶縁
- 高効率 75~82%
- 広範囲な入力電圧
- 高信頼性
- 無負荷電流が少ない
- 5面メタルシールド
- 動作周囲温度 -40°C~+85°C
- 最大ケース温度 +100°C
- RoHS指令対応
- アルミ電解コンデンサ及びタンタルコンデンサ不使用

General Characteristics

- Input Voltage, Range
 - Output Voltage, Current
 - Output Voltage Accuracy
 - Efficiency
 - Line Regulation
 - Load Regulation
 - Reflected Input Ripple and Noise
 - Output Ripple
 - Output Noise
 - Short Circuit Protection
 - Temperature Coefficient
 - Operating Ambient Temp.
 - Storage Temperature
 - Isolation Voltage
 - Isolation Impedance
 - Weight
 - Humidity
 - Shock
 - Vibration
 - Surface Structure
 - Soldering Conditions
 - MTBF
 - Warranty
- (at Ta : 25°C, Full Load, Nominal Vin)
DC 5, 12, 24, 48V (See Table 1)
See Table 1
±2% (5, 6V Vout : ±3%)
See Table 1
0.3% max. (at Vin Range)
Single : ±0.5% max. (0~100% Load)
Dual : ±3% max. (0~100% Load)
(3% Vin)Vp-p max.
20mVp-p max.
100mVp-p max.
Built-in, Auto-restart (See Fig. 2)
0.02%/°C max.
-40°C~+85°C (See Fig. 1)
-30°C~+85°C (5V Vin)
-40°C~+100°C
AC500V one minute
(Input-Output-Case)
100MΩ min. (at DC1000V)
(Input-Output-Case)
18g max.
20~95% RH
490m/s² (11msec 3directions)
10~55Hz 98m/s²
(30minutes 3directions)
5 Sided Steel Case
260°C, for 15 seconds max.
360°C, for 5 seconds max.
Single : 1,200,000H
Dual : 1,000,000H
(Ta : 25°C, 80%Load, Nominal Vin)
5 years

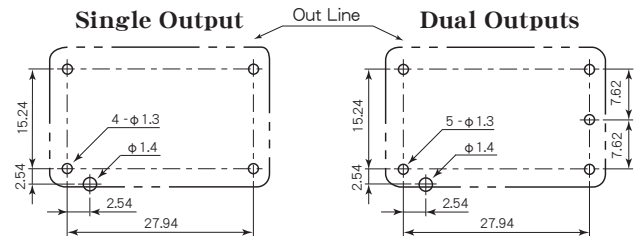
Pin Outs & Dimensions (±0.5mm)



Pin Outs

Single Output		Dual Outputs	
①	+Vdc in	①	+Vdc in
②	-Vdc in	②	-Vdc in
③	+Vdc out	③	+Vdc out
④	No Pin	④	Common
⑤	-Vdc out	⑤	-Vdc out
⑥	Frame Ground	⑥	Frame Ground

Hole Configurations on PCB (Top View)



Selection Guide

Table 1

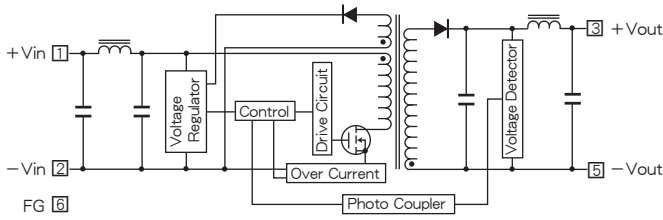
Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (mA)	Efficiency (Typical) (%)
SS 5 - 5S400	5 (4.5~9)	5	400	76
SS 5 - 6S350		6	350	76
SS 5 - 12S200		12	200	78
SS 5 - 15S160		15	160	79
SS 5 - 24S100		24	100	75
SS 5 - 5D200		±5	±200	75
SS 5 - 12D100		±12	±100	76
SS 5 - 15D80		±15	±80	78
SS 12 - 5S500		12 (8~18)	5	500
SS 12 - 6S450	6		450	79
SS 12 - 12S250	12		250	80
SS 12 - 15S200	15		200	80
SS 12 - 24S125	24		125	80
SS 12 - 5D250	±5		±250	75
SS 12 - 12D125	±12		±125	82
SS 12 - 15D100	±15		±100	80
SS 24 - 5S500	24 (16~36)		5	500
SS 24 - 6S450		6	450	79
SS 24 - 12S250		12	250	81
SS 24 - 15S200		15	200	80
SS 24 - 24S125		24	125	80
SS 24 - 5D250		±5	±250	75
SS 24 - 12D125		±12	±125	82
SS 24 - 15D100		±15	±100	82
SS 48 - 5S500		48 (32~72)	5	500
SS 48 - 6S450	6		450	78
SS 48 - 12S250	12		250	80
SS 48 - 15S200	15		200	80
SS 48 - 24S125	24		125	80
SS 48 - 5D250	±5		±250	75
SS 48 - 12D125	±12		±125	80
SS 48 - 15D100	±15		±100	80

※ 上記仕様以外にも対応可能ですのでお問い合わせ下さい。
Please consult with us about other specification.

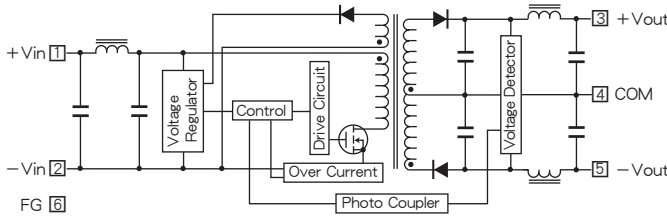
SS SERIES DATA SHEET

Block Diagram

Single Output



Dual Outputs



Characteristic Curves

Fig 1 Derating Curve

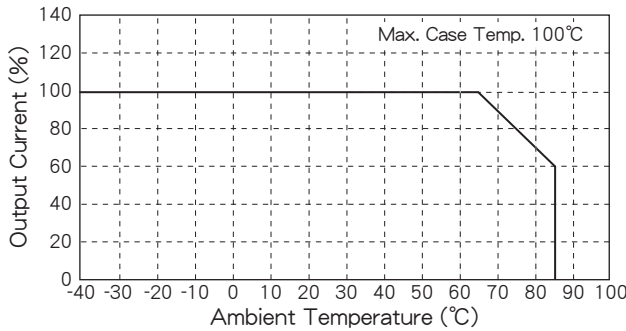


Fig 2 Short Circuit Operating Area

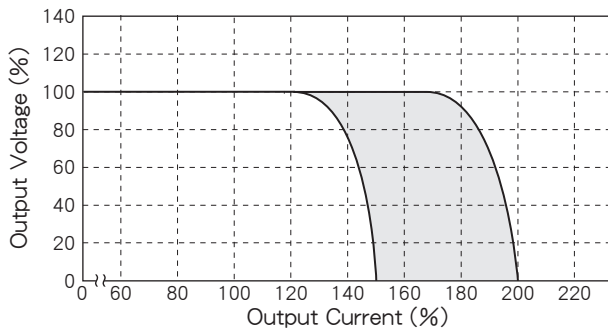


Fig 3 Temperature Characteristic on Case Surface

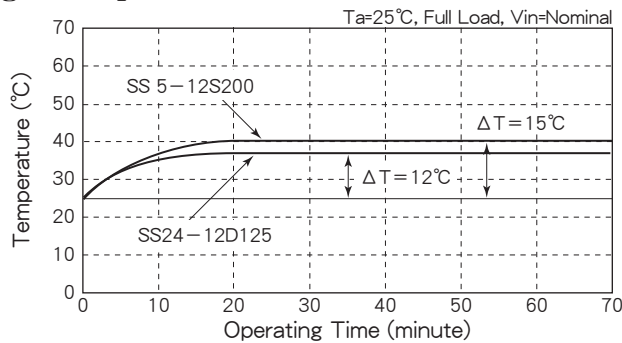


Fig 4 No Load Current vs. Input Voltage

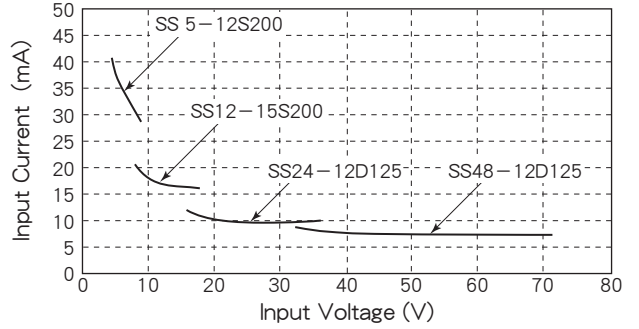


Fig 5 Efficiency vs. Output Current (Single Output)

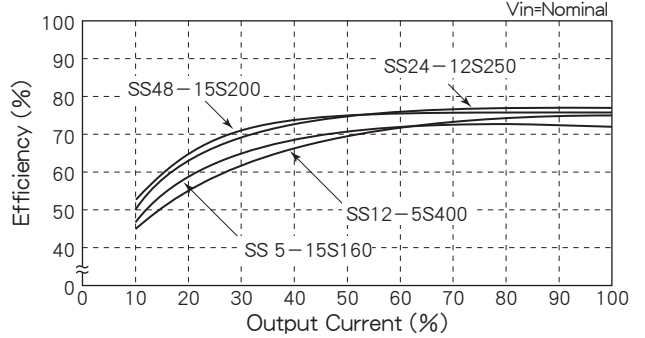


Fig 6 Efficiency vs. Output Current (Dual Outputs)

