

**ETA-USA**

HIGH QUALITY SWITCHING POWER SUPPLIES

SV Series

SVA-SC, SVA-SD 25W
 SVM-SC, SVM-SD 15W
 SVB-SC, SVB-SD 50W
 OUTPUT: SC SINGLE, SD DUAL
 Closed Frame



The SV-series has been developed to follow ETA's philosophy of "Miniaturization and high efficiency" of power supplies. The small size and high efficiency are suitable for many applications, especially small equipment.

25 WATT DC-DC CONVERTER

SVA-SC series
 Single Channel

Features

1. Very small (one of the smallest in Japan)
2. No derating when mounted on a horizontal surface
3. Low impedance capacitors
4. Over voltage protection
5. EMI: Complies with FCC/A

SVA-SC12 Input Specifications

Specifications SVA**SC12 25WATTS/1 OUTPUT	Model				
	SVA05SC12	SVA12SC12	SVA15SC12	SVA24SC12	SVA48SC12
Input Characteristic					
Input Voltage	DC12V				
Input Range	DC9.2-16V				
Inrush Current	Not specified				
Efficiency [%] (typical) *1	78	80	81	83	83

ETA-USA
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SVA-SC24 Input Specifications

Specifications SVA**SC24 25WATTS/1 OUTPUT	Model				
	SVA05SC24	SVA12SC24	SVA15SC24	SVA24SC24	SVA48SC24
Input Characteristic					
Input Voltage	DC24V				
Input Range	DC19-32V				
Inrush Current	Not specified				
Efficiency [%] (typical) *1	79	81	83	85	86

SVA-SC48 Input Specifications

Specifications SVA**SC48 25WATTS/1 OUTPUT	Model				
	SVA05SC48	SVA12SC48	SVA15SC48	SVA24SC48	SVA48SC48
Input Characteristic					
Input Voltage	DC48V				
Input Range	DC38-63V				
Inrush Current	Not specified				
Efficiency [%] (typical) *1	81	84	85	87	88

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SVA-SC12 Output Specifications

Specifications	Model				
	SVA**SC12(25WATTS/1 OUTPUT)	SVA05SC12	SVA12SC12	SVA15SC12	SVA24SC12
Output Characteristic					
Output Voltage [V]	5	12	15	24	48
Output Current [A]	5.0	2.1	1.7	1.1	0.5
Voltage Adjust Range	+/-10% of Rated Output Voltage(at no load within input range)				
Ripple and Noise [mVp-p](maximum) *2	150	220	250	340	580
Regulation					
Statistic Line Regulation [mV](maximum)	40	96	120	192	384
Statistic Load Regulation [mV](maximum)	45	108	135	216	432
Temperature Coefficient *4	0.03%/°C				
Drift[mV](maximum) *5	40	75	90	135	255
Dynamic Load Regulation [mV](typical) *6	150	360	450	720	1440
Recovery Time *5	2.0mS(typical)				
Rise up time	100mS(maximum) at 25°C and rated input/output				
Hold up time	Not specified				
Functions					
Over current Protection	Current Limiting with automatic recovery				
≥110% of Rated Output [A]	5.50	2.31	1.87	1.21	0.55
Over voltage Protection	Output shutdown(to reset, leave 1minute after shutdown)				
≥110% of Rated Output [V]	5.50	13.2	16.5	26.4	52.8
Remote Sense	not available				
Remote On/Off	not available				
Reverse Voltage Protection	by internal fuse				
Environmental					
Operating Temperature	0 to +50°C				
Operating Humidity	85%RH(non-condensing)				
Storage Temperature	-20 to +85°C				
Storage Humidity	85%RH(non-condensing)				
Withstanding Voltage	Primary-Secondary AC2,000V for 1minute				
	Primary-Frame Ground AC2,000V for 1minute				
	Secondary-Frame Ground AC500V for 1minute				
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester				
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s²,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)				
Shock	294m/s²				
Cooling	Convection				
□ Line Conduction Noise	Not specified				
□ Safety	-				
Weight (typical)	210g				
Dimensions (mm)	73W x 95L x 24H				
□ MTBF [H]	640,000				
□ Switching Frequency[kHz](typical)	100 Fix.	100 Fix.	90 Fix.	90 Fix.	90 Fix.

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Specifications	Model				
SVA**SC24(25WATTS/1 OUTPUT)	SVA05SC24	SVA12SC24	SVA15SC24	SVA24SC24	SVA48SC24
Output Characteristic					
Output Voltage [V]	5	12	15	24	48
Output Current [A]	5.0	2.1	1.7	1.1	0.5
Voltage Adjust Range	+/-10% of Rated Output Voltage(at no load within input range)				
Ripple and Noise [mVp-p](maximum) *2	150	220	250	340	580
Regulation					
Statistic Line Regulation [mV](maximum)	40	96	120	192	384
Statistic Load Regulation [mV](maximum)	45	108	135	216	432
Temperature Coefficient *4	0.03%/°C				
Drift[mV](maximum) *5	40	75	90	135	255
Dynamic Load Regulation [mV](typical) *6	150	360	450	720	1440
Recovery Time *5	0.3mS(typical)				
Rise up time	100mS(maximum) at 25°C and rated input/output				
Hold up time	Not specified				
Functions					
Over current Protection	Current Limiting with automatic recovery				
≥110% of Rated Output [A]	5.50	2.31	1.87	1.21	0.55
Over voltage Protection	Output shutdown(to reset, leave 1minute after shutdown)				
≥110% of Rated Output [V]	5.50	13.2	16.5	26.4	52.8
Remote Sense	not available				
Remote On/Off	not available				
Reverse Voltage Protection	by internal fuse				
Environmental					
Operating Temperature	0 to +50°C				
Operating Humidity	85%RH(non-condensing)				
Storage Temperature	-20 to +85°C				
Storage Humidity	85%RH(non-condensing)				
Withstanding Voltage	Primary-Secondary AC2,000V for 1minute				
	Primary-Frame Ground AC2,000V for 1minute				
	Secondary-Frame Ground AC500V for 1minute				
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester				
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				
□ Line Conduction Noise	Not specified				
□ Safety	-				
Weight (typical)	210g				
Dimensions (mm)	73W x 95L x 24H				
□ MTBF [H]	740,000				
□ Switching Frequency[kHz](typical)	90 Fix.	90 Fix.	90 Fix.	90 Fix.	90 Fix.

SVA-SC48 Output Specifications

Specifications	Model				
SVA**SC48(25WATTS/1 OUTPUT)	SVA05SC48	SVA12SC48	SVA15SC48	SVA24SC48	SVA48SC48
Input Characteristic					
Input Voltage	DC48V				
Input Range	DC38-63V				
Inrush Current	Not specified				
Efficiency [%] (typical) *1	81	84	85	87	88
Output Characteristic					
Output Voltage [V]	5	12	15	24	48
Output Current [A]	5.0	2.1	1.7	1.1	0.5
Voltage Adjust Range	+/-10% of Rated Output Voltage(at no load within input range)				
Ripple and Noise [mVp-p](maximum) *2	150	220	250	340	580
Regulation					
Statistic Line Regulation [mV](maximum)	40	96	120	192	384
Statistic Load Regulation [mV](maximum)	45	108	135	216	432
Temperature Coefficient *3	0.03%/°C				
Drift[mV](maximum) *4	40	75	90	135	255
Dynamic Load Regulation [mV](typical) *5	150	360	450	720	1440
Recovery Time *5	0.3mS(typical)				
Rise up time	500mS(maximum) at 25°C and rated input/output				
Hold up time	Not specified				
Functions					
Over current Protection	Current Limiting with automatic recovery				
≥110% of Rated Output [A]	5.50	2.31	1.87	1.21	0.55
Over voltage Protection	Output shutdown(to reset, leave 1minute after shutdown)				
≥110% of Rated Output [V]	5.50	13.2	16.5	26.4	52.8
Remote Sense	not available				
Remote On/Off	not available				
Reverse Voltage Protection	by internal fuse				
Environmental					
Operating Temperature	0 to +50°C				
Operating Humidity	85%RH(non-condensing)				
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	Secondary-Frame Ground AC500V for 1minute				
Isolation Resistance	Primary-Secondary-Frame Ground 50MΩ(minimum) by DC500V insulation tester				
Vibration	5-10Hz:10mm double amplitude,10-55Hz:19.6m/s²,20minutes' period for 60minutes each along X,Y,Z axes(non-operating)				
Shock	294m/s²				
Cooling	Convection				
□ Line Conduction Noise	Not specified				
□ Safety	-				
Weight (typical)	210g				
Dimensions (mm)	73W x 95L x 24H				
□ MTBF [H]	740,000				
□ Switching Frequency[kHz](typical)	90 Fix.	90 Fix.	90 Fix.	90 Fix.	90 Fix.

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Conditions:

*1 at DC12V and rated output

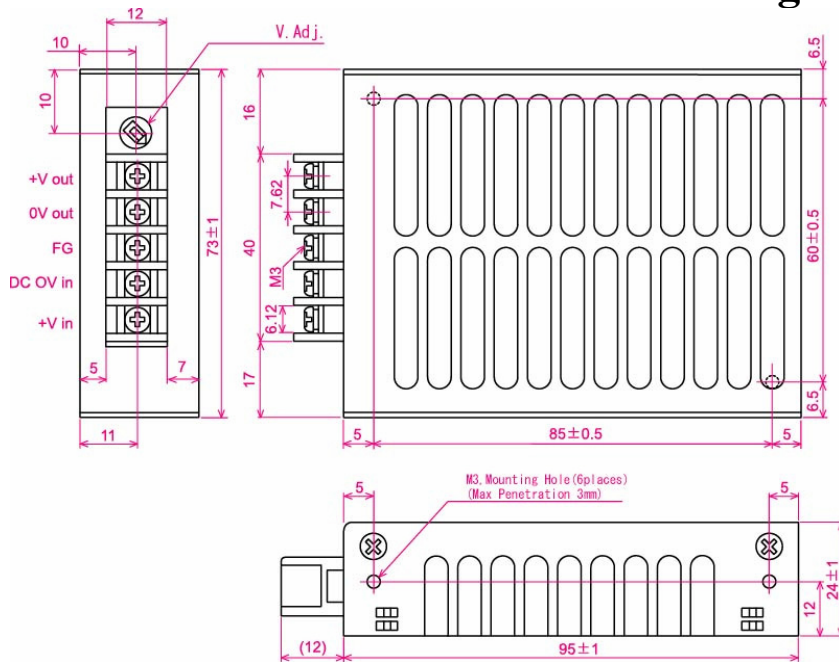
*2 measured by a bayonet probe at the output connector at a 0 to 100MHz bandwidth

*3 at 0 to +50°C

*4 for 7hours from 1hour after switch-on at 25°C and rated input/output

*5 when output current changed from 25% to 75% of rated output current rapidly at DC12V input

Mechanical Drawing



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