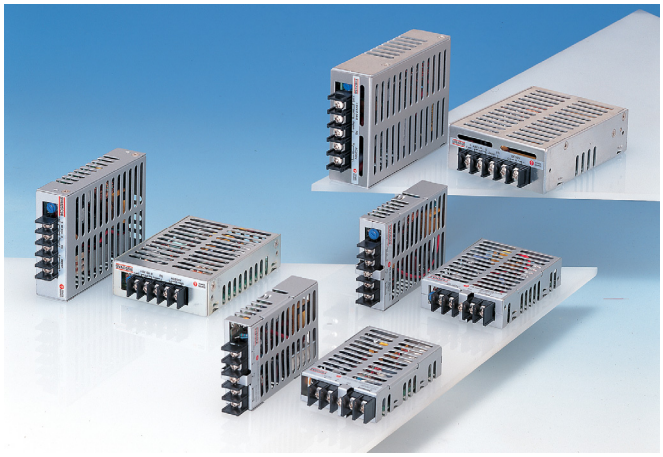
ETA-USA
Your power supply experts

50 WATT AC-DC CONVERTER

SVB-SA SERIES



The SV-series has been developed to follow ETA's philosophy of "Miniaturization and high efficiency" of power supplies. There are two inputs available: SVA..-SA is designed for 100VAC; SVA-..SB is usable with 200VAC. The small size and high efficiency are suitable for many applications, especially small equipment.

Application

Industrial

Input

Input Voltage: AC85-132V

Efficiency: 77%

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**

Options

Specifications<AC/DC> SVB**SA 50WATTS/SINGLE	Model				
	SVB05SA	SVB12SA	SVB15SA	SVB24SA	SVB48SA
Input Characteristic					
Input Voltage	AC100V				
Input Range	AC85-132V(DC110-175V)				
Input Frequency	50/60Hz				
Input Frequency Range	47-440Hz				
Phase	Single				
Inrush Current *1	30A(maximum)at AC100V				
Efficiency [%] (typical) *2	82	84	85	86	87

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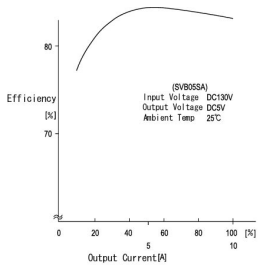
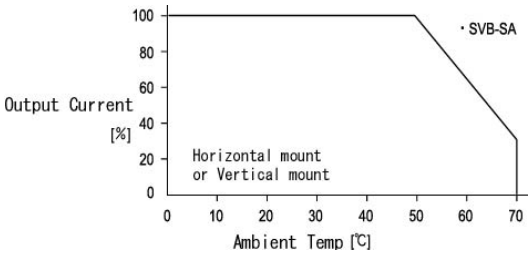
Efficiency Curve

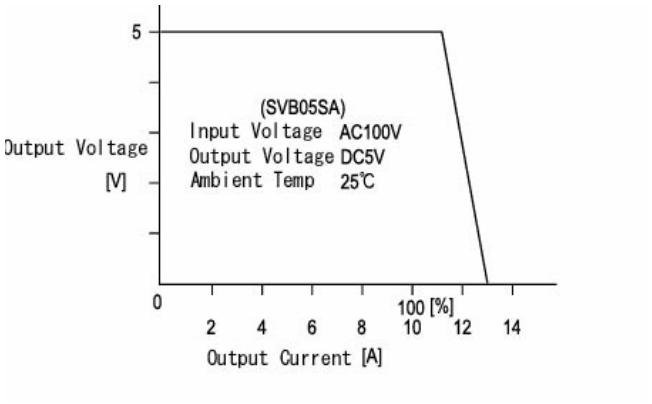


Derating Curve



SVB05SA_K

OCP Curve



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SVB**SA Specification

Specifications<AC/DC> SVB**SA 50WATTS/SINGLE	Model SVB05SA	SVB12SA	SVB15SA	SVB24SA	SVB48SA
Input Characteristic					
Output Voltage [V]	5	12	15	24	48
Output Current [A]	10.0	4.3	3.4	2.5	1.1
Voltage Adjust Range	+/- 10% of Rated Output Voltage(at no load within the input range)				
Ripple and Noise [mVp-p](maximum) *3	150	220	250	340	580
Regulation					
a.Statistic Line Regulation [mV](maximum)	40	96	120	192	384
b.Statistic Load Regulation [mV](maximum)	45	108	135	216	432
c.Temperature Coefficient *4	0.03%/℃				
d.Drift[mV](maximum) *5	40	75	90	135	255
e.Dynamic Load Regulation [mV](typical) *6	150	360	450	720	1440
f.Recovery Time *6	0.3mS(typical)				
Rise up time	500mS(maximum) at 25℃ and rated input/output				
Hold up time	20mS(minimum) at 25℃ and rated input/output				
Functions					
Overcurrent Protection ≧110% of Rated Output Current[A]	Current Limiting with automatic recovery				
	11.0	4.73	3.74	2.75	1.21
Overvoltage Protection ≧110% of Rated Output Voltage[V]	output shutdown(to reset,leave 1minute after shut-off)				
	5.50	13.2	16.5	26.4	52.8
Remote Sense	not available				
Remote On/Off	not available				
Environmental					
Operating Temperature	0 to +50℃				
Operating Humidity	85%RH(non-condensing)				
Storage Temperature	-20 to +85℃				
Storage Humidity	85%RH(non-condensing)				
Withstanding Voltage	Primary-Secondary AC1,500V for 1minute				
	Primary-Frame Ground AC1,500V 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				
? Leakage Current	1mA(maximum) at 25℃,rated input/output and rated input frequency				
? Safety					
? Weight (typical)	280g				
? MTBF [H]	610,000				
? Switching Frequency[kHz](typical)	130				

Conditions:

*1 at cold start

*2 at DC130V input and rated output

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

*4 at 0 to +50℃

*5 for 7hour period after 1hour warm-up at 25℃ and rated input/output

*6 when output current changed from 25% to 75% of rated output current rapidly at AC100V input

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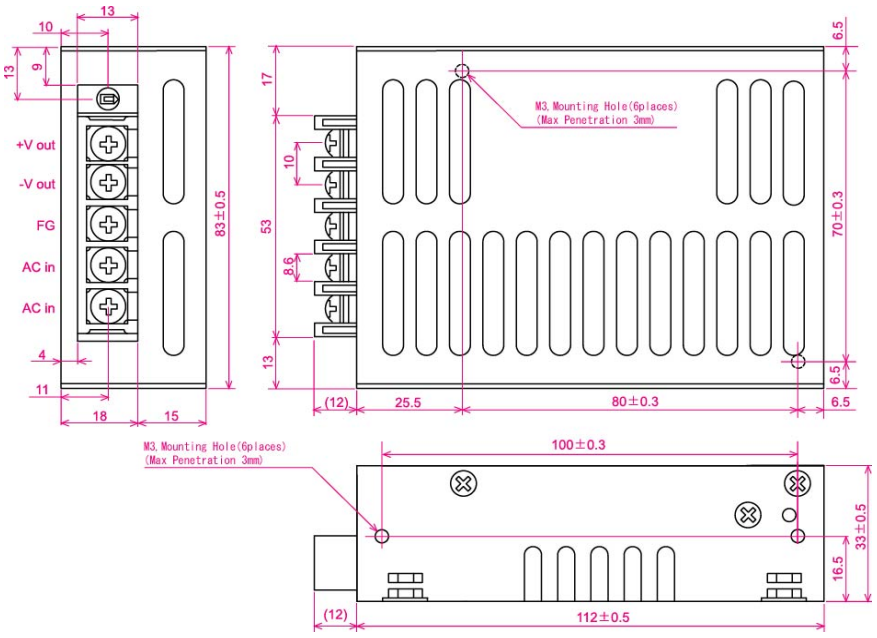
Dimension (mm)



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