



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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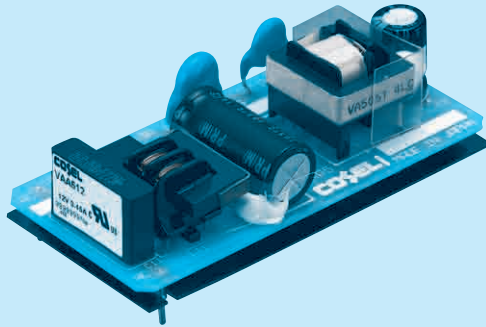


VAA5

VAA 5 05

① ② ③

c  us
RoHS



① Series name
② Output wattage
③ Output voltage

MODEL	VAA505	VAA512
MAX OUTPUT WATTAGE[W]	5.0	5.4
DC OUTPUT	VOLTAGE[V]	5
	CURRENT[A]	1.0
		12
		0.45

VAA

SPECIFICATIONS

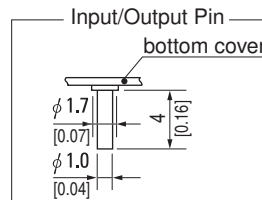
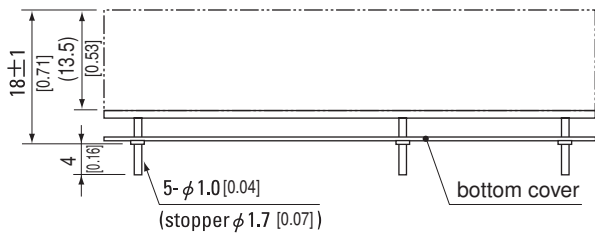
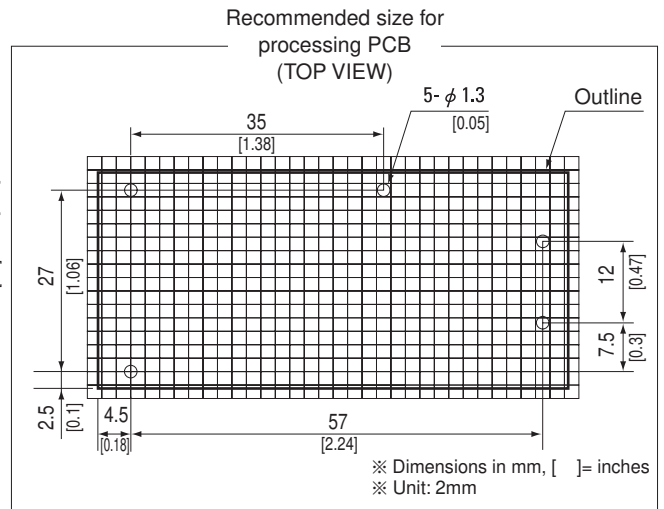
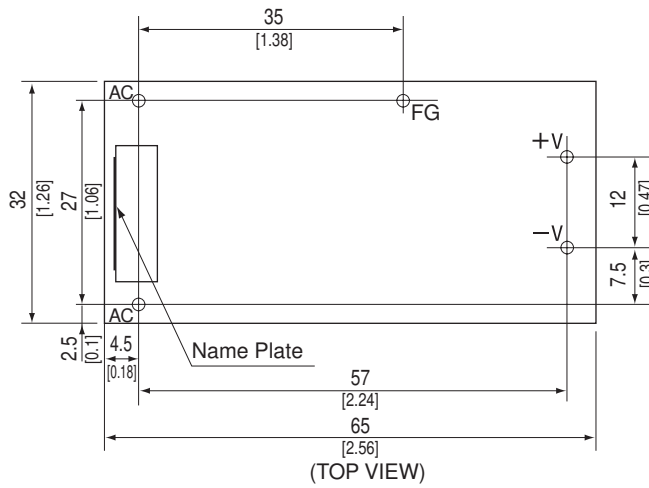
	MODEL	VAA505	VAA512	
INPUT	VOLTAGE[V]	AC85 - 132 1 φ or DC110 - 170		
	CURRENT[A]	*1 0.13typ (ACIN 100V, Io=100%)		
	EFFICIENCY[%]	*1 75typ	77typ	
	FREQUENCY[Hz]	47 - 440 or DC		
	INRUSH CURRENT[A]	*1 15typ (ACIN 100V, Io=100%)		
	LEAKAGE CURRENT[ma]	0.5max (60Hz According to UL and DEN-AN)		
OUTPUT	VOLTAGE[V]	5	12	
	CURRENT[A]	1.0	0.45	
	LINE REGULATION[mV]	20max	48max	
	LOAD REGULATION[mV]	40max	100max	
	RIPPLE[mVp-p]	0 to +55°C *2	80max	120max
		-10 - 0°C *2	140max	160max
	RIPPLE NOISE[mVp-p]	0 to +55°C *2	120max	150max
		-10 - 0°C *2	160max	180max
	TEMPERATURE COEFFICIENT[mV]	-10 to +55°C	50max	120max
	DRIFT[mV]	*3	20max	48max
	OUTPUT VOLTAGE ADJUSTMENT RANGE	Fixed		
START-UP TIME[ms]	200max (ACIN 85V, Io=100%)			
HOLD-UP TIME[ms]	10typ (ACIN 85V, Io=100%), 20typ (ACIN 100V, Io=100%)			
OUTPUT VOLTAGE SETTING[V]	*1 4.90 - 5.30	11.40 - 12.60		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically		
	OVERVOLTAGE PROTECTION	Works over 115% of rating (by zener diode clamping)		
ISOLATION	INPUT-OUTPUT	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)		
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)		
	OUTPUT-FG	AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (At Room Temperature)		
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-10 to +70°C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max		
	STORAGE TEMP.,HUMID.AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max		
	VIBRATION	19.6m/s ² 10 - 55Hz, 3minutes period, 60minutes each along X, Y and Z axis (Non operating)		
	IMPACT	196.1m/s ² 11ms, once each X, Y and Z axis (Non operating)		
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL Complies with DEN-AN (External Fuse is required)		
	CONDUCTED NOISE	Complies with FCC-B, additional capacitors required for meeting VCCI class B		
OTHERS	CASE SIZE/WEIGHT	32 × 18 × 65mm [1.26 × 0.71 × 2.56 inches] (W × H × D) / 30g max		
	COOLING METHOD	Convection		

*1 Rated input/output Ta=25°C

*2 This is the value that measured on measuring board with capacitor of 22 μF. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM101).

*3 Drift is the charge in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

External view

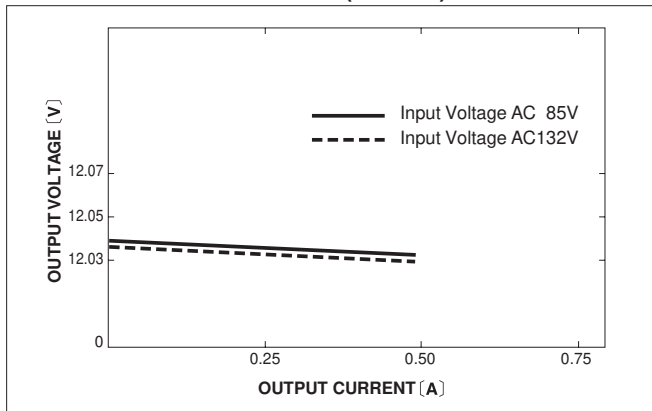


- ※ Weight: 30g max
- ※ Tolerance: ±0.5 [±0.02]
- ※ PCB material: CEM-3
- ※ PCB thickness: t=1.0 [0.04]
- ※ Pin material: CPW with solder plated
- ※ Recommended hole dia. to PCB: φ1.3
- ※ Dimensions in mm, []= inches

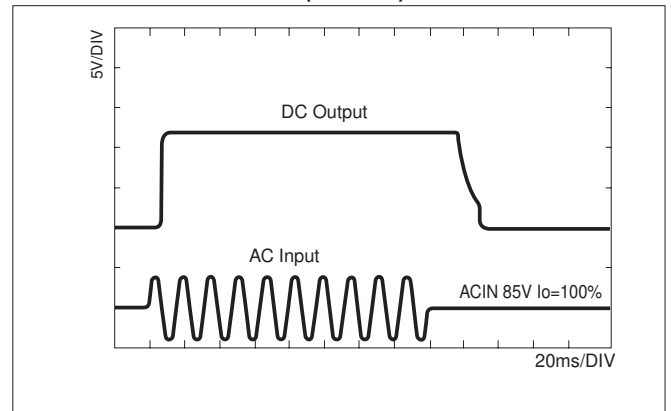
VAA

Performance data

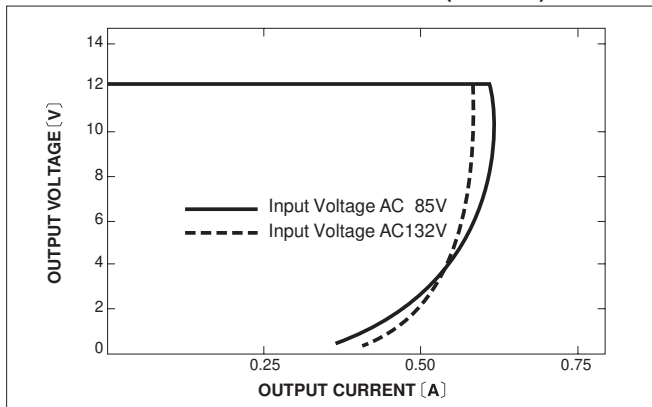
■ STATIC CHARACTERISTICS (VAA512)



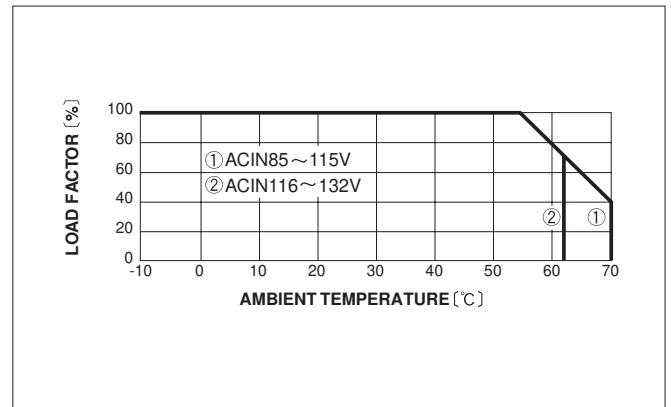
■ RISE TIME & FALL TIME (VAA512)



■ OVERCURRENT CHARACTERISTICS (VAA512)



■ DERATING CURVE

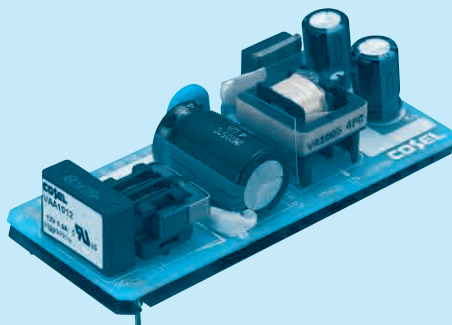


VAA10

VAA 10 05

① ② ③

c **RoHS**



① Series name
② Output wattage
③ Output voltage

MODEL	VAA1005	VAA1012
MAX OUTPUT WATTAGE[W]	10.0	10.8
DC OUTPUT	VOLTAGE[V]	5
	CURRENT[A]	2.0

SPECIFICATIONS

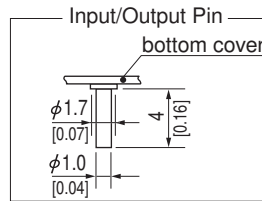
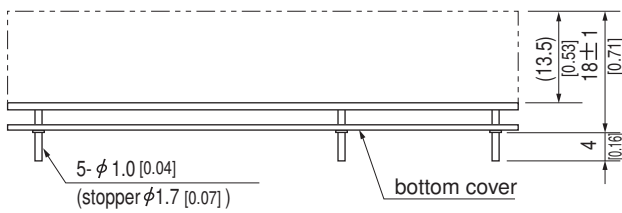
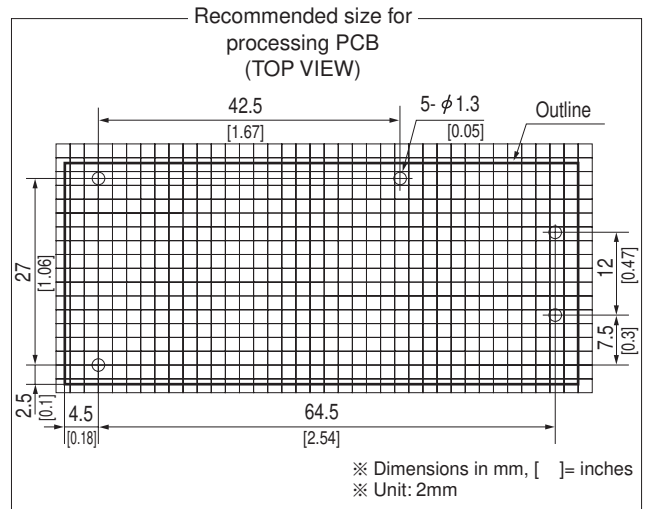
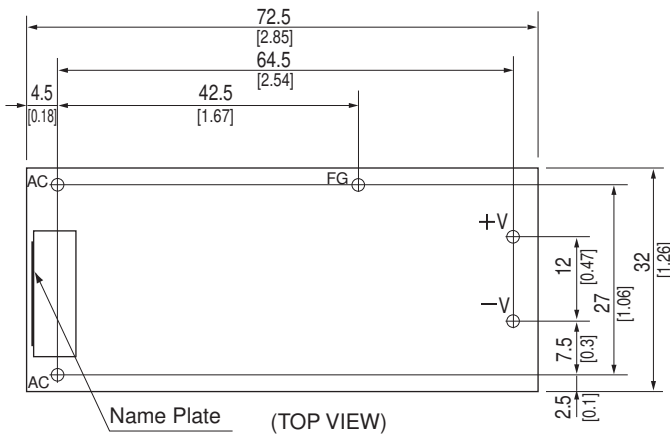
	MODEL	VAA1005	VAA1012	
INPUT	VOLTAGE[V]	AC85 - 132 1 φ or DC110 - 170		
	CURRENT[A]	*1 0.3typ (ACIN 100V, Io=100%)		
	EFFICIENCY[%]	*1 76typ	77typ	
	FREQUENCY[Hz]	47 - 440 or DC		
	INRUSH CURRENT[A]	*1 15typ (ACIN 100V, Io=100%)		
	LEAKAGE CURRENT[ma]	0.5max (60Hz According to UL and DEN-AN)		
OUTPUT	VOLTAGE[V]	5	12	
	CURRENT[A]	2.0	0.9	
	LINE REGULATION[mV]	20max	48max	
	LOAD REGULATION[mV]	40max	100max	
	RIPPLE[mVp-p]	0 to +55°C *2	80max	120max
		-10 - 0°C *2	140max	160max
	RIPPLE NOISE[mVp-p]	0 to +55°C *2	120max	150max
		-10 - 0°C *2	160max	180max
	TEMPERATURE COEFFICIENT[mV]	-10 to +55°C	50max	120max
	DRIFT[mV]	*3	20max	48max
	OUTPUT VOLTAGE ADJUSTMENT RANGE	Fixed		
START-UP TIME[ms]	200max (ACIN 85V, Io=100%)			
HOLD-UP TIME[ms]	10typ (ACIN 85V, Io=100%), 20typ (ACIN 100V, Io=100%)			
OUTPUT VOLTAGE SETTING[V]	*1 4.90 - 5.30	11.40 - 12.60		
PROTECTION CIRCUIT	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically		
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ISOLATION	INPUT-OUTPUT	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At Room Temperature)		
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	STORAGE TEMP.,HUMID.AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max		
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	CONDUCTED NOISE	Complies with FCC-B, additional capacitors required for meeting VCCI class B		
OTHERS	CASE SIZE/WEIGHT	32 × 18 × 72.5mm [1.26 × 0.71 × 2.85 inches] (W × H × D) / 35g max		
	COOLING METHOD	Convection		

*1 Rated input/output Ta=25°C

*2 This is the value that measured on measuring board with capacitor of 22 μF. Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN: RM101).

*3 Drift is the charge in DC output for an eight hour period after a half-hour warm-up at 25°C, with the input voltage held constant at the rated input/output.

External view

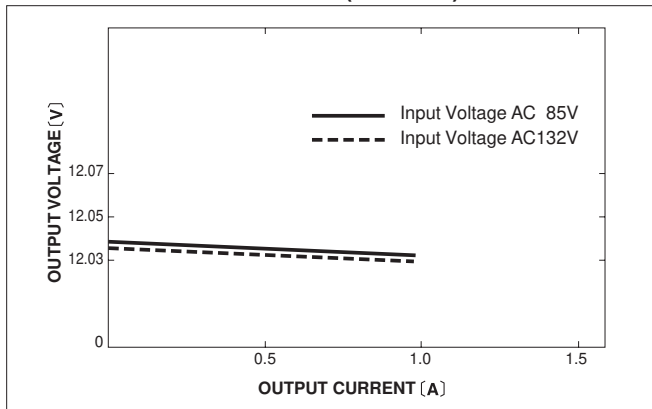


- ※ Weight: 35g max
- ※ Tolerance: ± 0.5 [± 0.02]
- ※ PCB material: CEM-3
- ※ PCB thickness: $t=1.0$ [0.04]
- ※ Pin material: CPW with solder plated
- ※ Recommended hole dia. to PCB: ϕ 1.3
- ※ Dimensions in mm, [] = inches

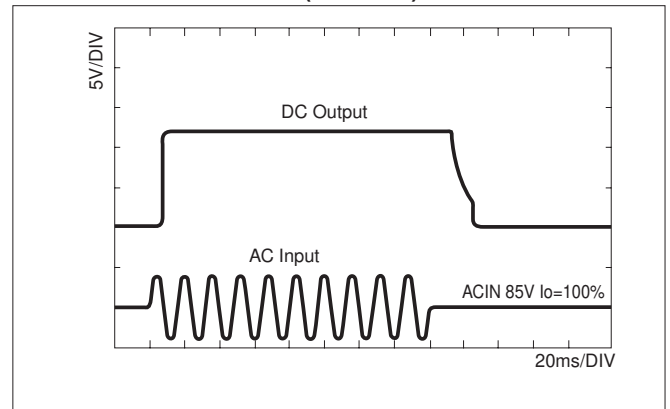
VAA

Performance data

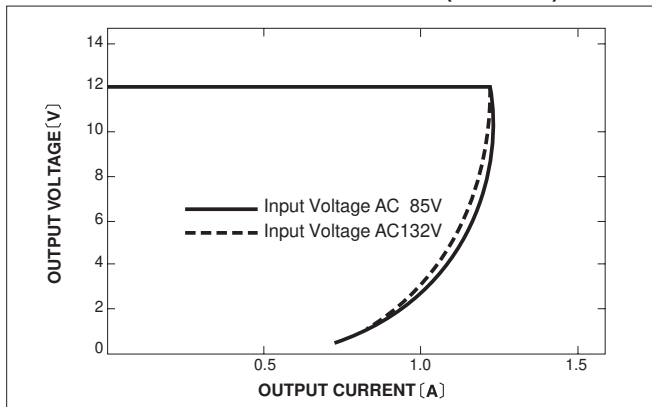
■ STATIC CHARACTERISTICS (VAA1012)



■ RISE TIME & FALL TIME (VAA1012)



■ OVERCURRENT CHARACTERISTICS (VAA1012)



■ DERATING CURVE

