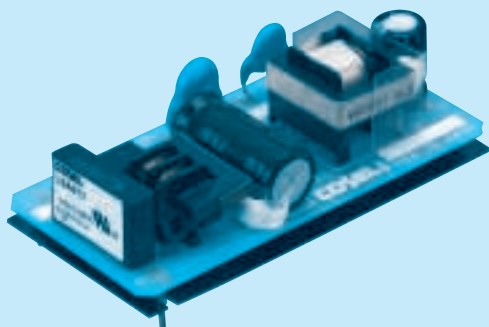


VAA5

VAA 5 05

① ② ③

c   
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   |

## SPECIFICATIONS

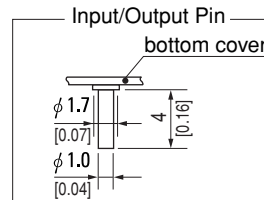
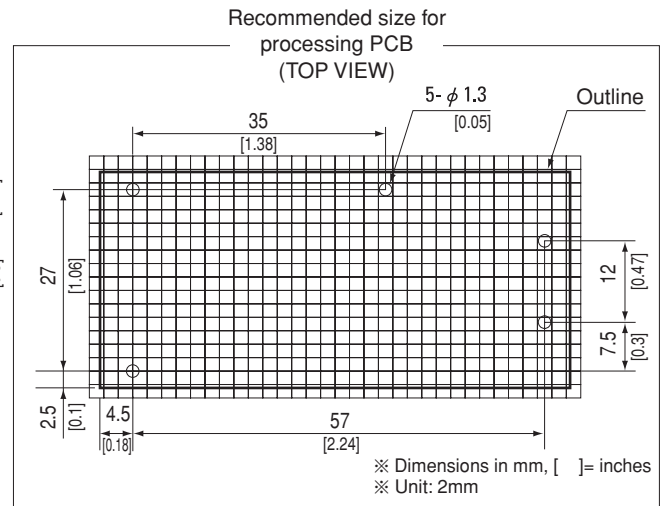
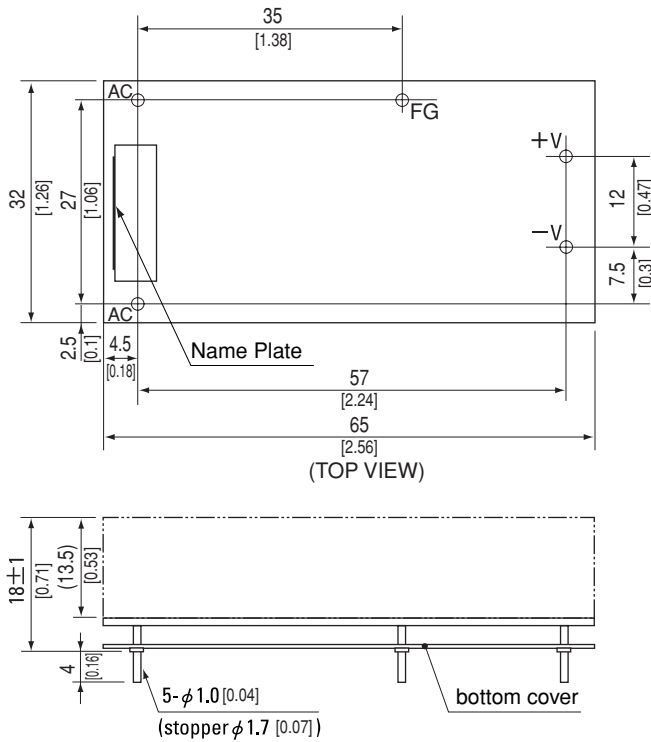
| VAA                          | MODEL                                | VAA505                                                                                                | VAA512 |
|------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------|--------|
| INPUT                        | VOLTAGE[V]                           | AC85 - 132 1 $\phi$ 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%)                                                                            |        |
| 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 50M $\Omega$ min (At Room Temperature)                |        |
|                              | INPUT-FG                             | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)                |        |
|                              | OUTPUT-FG                            | AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ 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 <sup>2</sup> 10 - 55Hz, 3minutes period, 60minutes each along X, Y and Z axis (Non operating) |        |
|                              | IMPACT                               | 196.1m/s <sup>2</sup> 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  $\mu$ F. 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

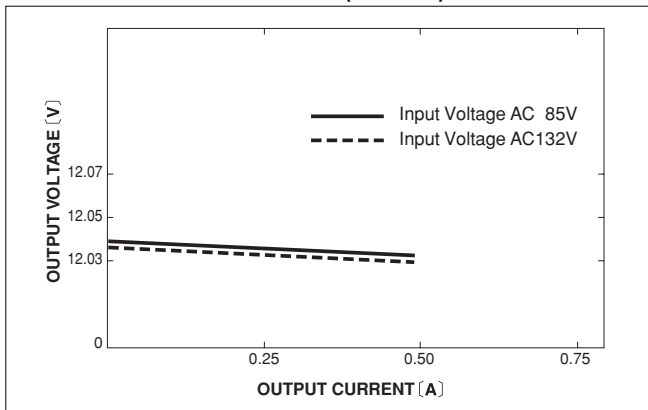


- ※ Weight: 30g max
- ※ Tolerance:  $\pm 0.5$  [ $\pm 0.02$ ]
- ※ PCB material: CEM-3
- ※ PCB thickness:  $\pm 1.0$  [0.04]
- ※ Pin material: CPW with solder plated
- ※ Recommended hole dia. to PCB:  $\phi 1.3$
- ※ Dimensions in mm, [ ]= inches

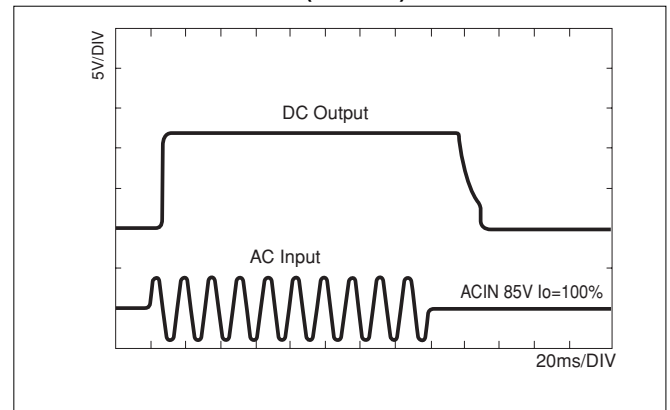
VAA

## Performance data

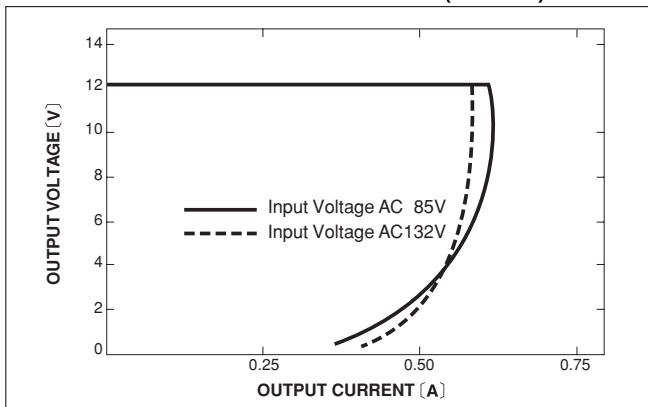
## ■ STATIC CHARACTERISTICS (VAA512)



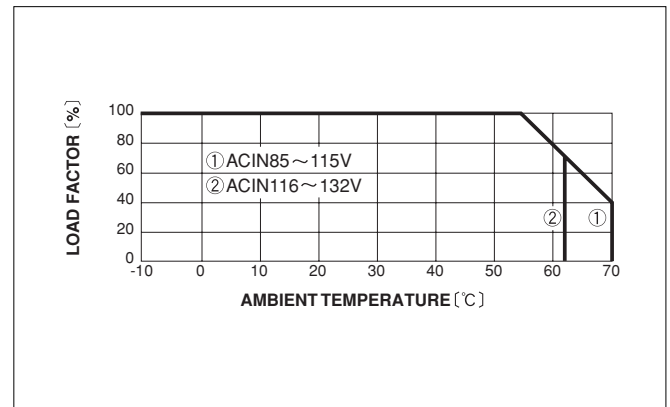
## ■ RISE TIME &amp; FALL TIME (VAA512)



## ■ OVERCURRENT CHARACTERISTICS (VAA512)



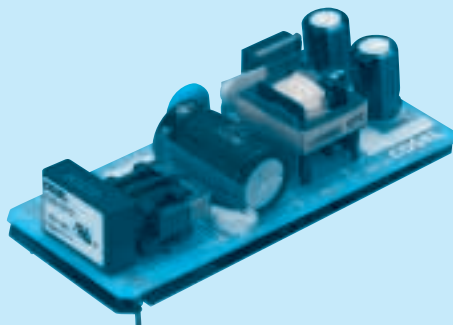
## ■ DERATING CURVE



VAA10

VAA 10 05

① ② ③

c  us  
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     |
|                       |            | 12      |
|                       |            | 0.9     |

## SPECIFICATIONS

VAA

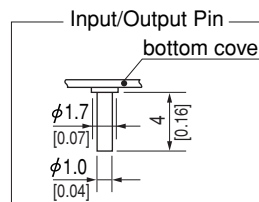
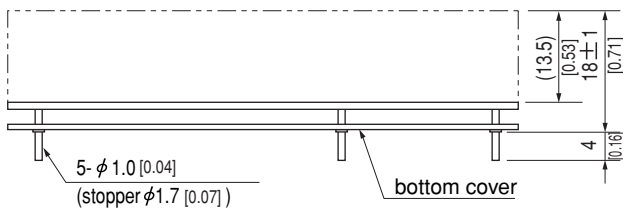
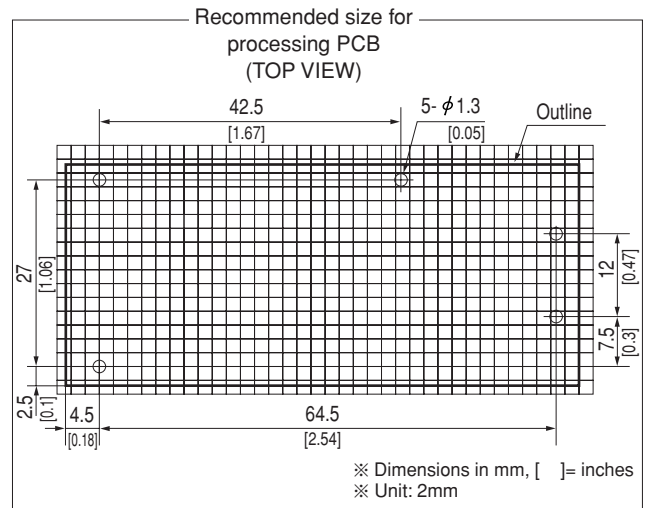
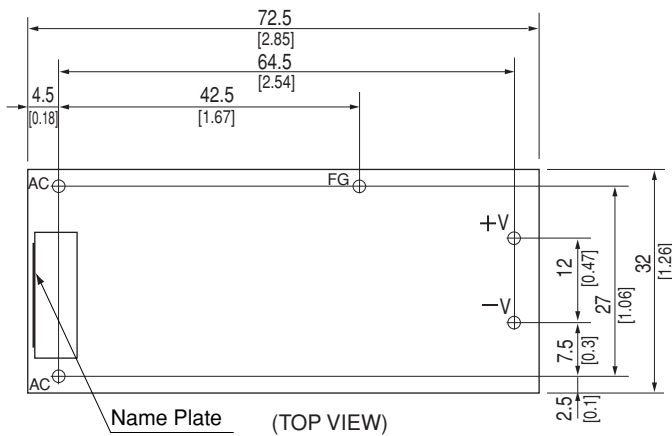
|                              | MODEL                                | VAA1005                                                                                               | VAA1012 |
|------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------|---------|
| INPUT                        | VOLTAGE[V]                           | AC85 - 132 1 $\phi$ 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%)                                                                            |         |
| 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 50M $\Omega$ min (At Room Temperature)                |         |
|                              | INPUT-FG                             | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (At Room Temperature)                |         |
|                              | OUTPUT-FG                            | AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ 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 <sup>2</sup> 10 - 55Hz, 3minutes period, 60minutes each along X, Y and Z axis (Non operating) |         |
|                              | IMPACT                               | 196.1m/s <sup>2</sup> 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 × 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  $\mu$ F. 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

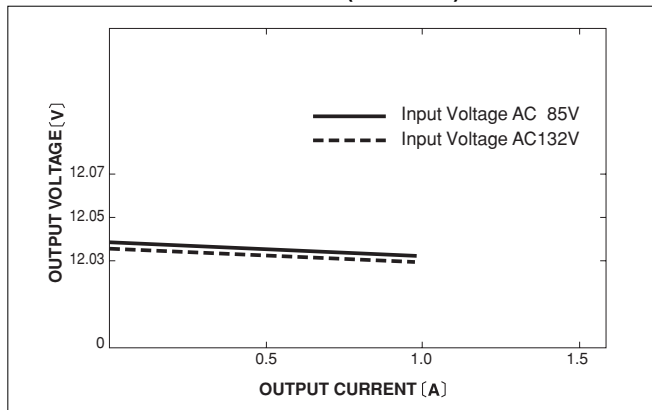


- ※ Weight: 35g max
- ※ Tolerance:  $\pm 0.5$  [ $\pm 0.02$ ]
- ※ PCB material: CEM-3
- ※ PCB thickness:  $t=1.0$  [0.04]
- ※ Pin material: CPW with solder plated
- ※ Recommended hole dia. to PCB:  $\phi 1.3$
- ※ Dimensions in mm, [ ] = inches

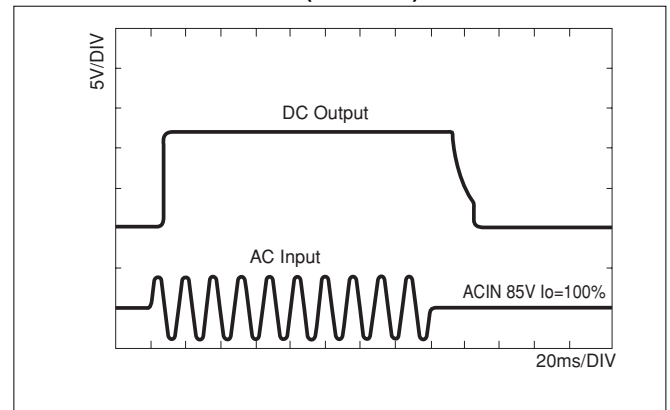
VAA

## Performance data

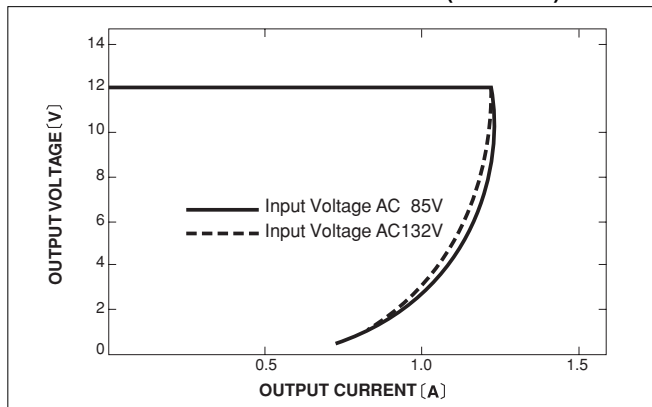
## ■ STATIC CHARACTERISTICS (VAA1012)



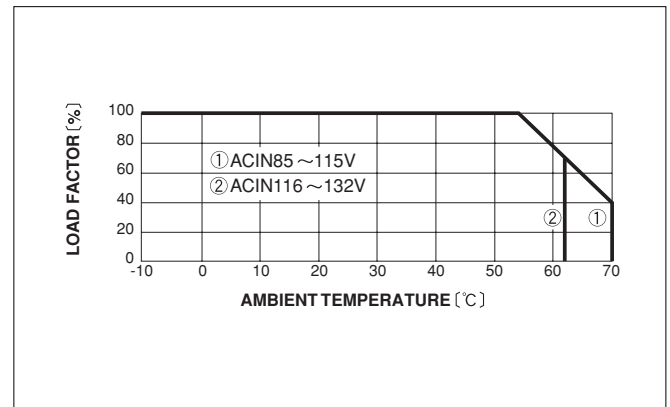
## ■ RISE TIME &amp; FALL TIME (VAA1012)



## ■ OVERCURRENT CHARACTERISTICS (VAA1012)



## ■ DERATING CURVE



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Cosel:

[VAA505](#) [VAA1012](#) [VAA1005](#) [VAA512](#)



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.