

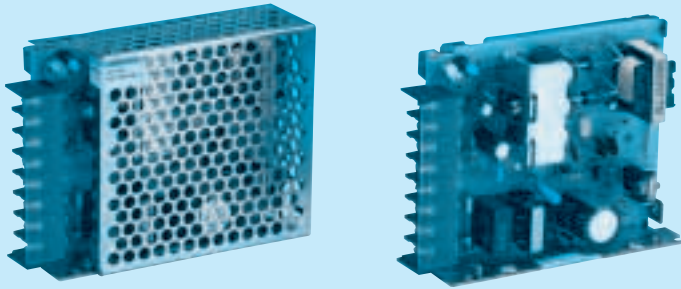
## RMB15A

RMB 15A -1 -□

① ② ③ ④



RoHS



- ① Series name  
 ② Output wattage  
 ③ Output voltage combination  
 ④ Optional \*1  
 J : Connector type  
 N : with Cover

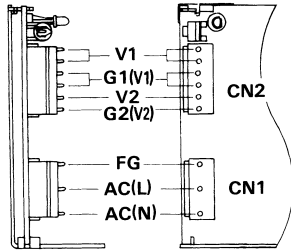
| MODEL     |    | RMB15A-1            | RMB15A-2             |
|-----------|----|---------------------|----------------------|
| DC OUTPUT | V1 | +5V 0.8A            | +5V 0.8A             |
|           | V2 | +12V 1.0(Peak 1.3)A | +24V 0.5(Peak 0.65)A |

## SPECIFICATIONS

|                               | MODEL                              | RMB15A-1    |                                                                                             | RMB15A-2           |               |                     |
|-------------------------------|------------------------------------|-------------|---------------------------------------------------------------------------------------------|--------------------|---------------|---------------------|
| INPUT                         | VOLTAGE[V]                         |             | AC85 - 132 1 $\phi$ or DC110 - 170                                                          |                    |               |                     |
|                               | CURRENT[A]                         | ACIN 100V   | 0.45typ (Io=100%)                                                                           |                    |               |                     |
|                               | FREQUENCY[Hz]                      |             | 47 - 440 or DC                                                                              |                    |               |                     |
|                               | EFFICIENCY[%]                      | ACIN 100V   | 68typ (Io=100%)                                                                             |                    |               |                     |
|                               | INRUSH CURRENT[A]                  | ACIN 100V   | 20typ (Io=100%) (At cold start)                                                             |                    |               |                     |
| OUTPUT                        | VOLTAGE[V]                         |             | +5                                                                                          | +12                | +5            | +24                 |
|                               | CURRENT[A]                         |             | 0 - 0.8                                                                                     | 0 - 1.0 (Peak 1.3) | 0 - 0.8       | 0 - 0.5 (Peak 0.65) |
|                               | LINE REGULATION[mV]                |             | 20max                                                                                       | 48max              | 20max         | 96max               |
|                               | LOAD REGULATION[mV]                |             | 150max                                                                                      | 100max             | 150max        | 150max              |
|                               | RIPPLE[mVp-p]                      | 0 to +50℃   | 100max                                                                                      | 120max             | 100max        | 120max              |
|                               |                                    | -10 - 0℃    | 140max                                                                                      | 160max             | 140max        | 160max              |
|                               | RIPPLE NOISE[mVp-p]                | 0 to +50℃   | 120max                                                                                      | 150max             | 120max        | 150max              |
|                               |                                    | -10 - 0℃    | 160max                                                                                      | 180max             | 160max        | 180max              |
|                               | TEMPERATURE REGULATION[mV]         | 0 to +50℃   | 150max                                                                                      | 120max             | 150max        | 240max              |
|                               |                                    | -10 to +50℃ | 180max                                                                                      | 150max             | 180max        | 290max              |
|                               | START-UP TIME[ms]                  |             | 100max (ACIN 85V, Io=100%)                                                                  |                    |               |                     |
|                               | HOLD-UP TIME[ms]                   |             | 10typ (ACIN 85V, Io=100%, 0 to +50℃) 20typ (ACIN 100V, Io=100%, 0 to +50℃)                  |                    |               |                     |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] |             | 5.00 - 5.25                                                                                 | Fixed              | 5.00 - 5.25   | Fixed               |
| OUTPUT VOLTAGE SETTING[V]     |                                    | ——          | 11.40 - 12.60                                                                               | ——                 | 22.80 - 25.20 |                     |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION             |             | Works over 105% of rating (peak current for V2) and recovers automatically                  |                    |               |                     |
|                               | OVERVOLTAGE PROTECTION             |             | By zener diode clamping (+5V)                                                               |                    |               |                     |
|                               | OPERATING INDICATION               |             | LED (Green)                                                                                 |                    |               |                     |
| ISOLATION                     | INPUT-OUTPUT                       |             | AC2,000V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                             |                    |               |                     |
|                               | INPUT-FG, COVER                    |             | AC2,000V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                             |                    |               |                     |
|                               | OUTPUT-FG, COVER                   |             | AC500V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                               |                    |               |                     |
|                               | OUTPUT-OUTPUT(V1-V2)               |             | AC100V 1minute, DC100V 10M $\Omega$ min (At Room Temperature)                               |                    |               |                     |
| ENVIRONMENT                   | OPERATING TEMP.,HUMID.AND ALTITUDE |             | -10 to +60℃, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max |                    |               |                     |
|                               | STORAGE TEMP.,HUMID.AND ALTITUDE   |             | -20 to +75℃, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max                           |                    |               |                     |
|                               | VIBRATION                          |             | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis |                    |               |                     |
|                               | IMPACT                             |             | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis                                |                    |               |                     |
| SAFETY AND NOISE REGULATIONS  | AGENCY APPROVALS                   |             | UL60950-1, C-UL Complies with DEN-AN                                                        |                    |               |                     |
|                               | CONDUCTED NOISE                    |             | Complies with FCC-B, VCCI-B                                                                 |                    |               |                     |
| OTHERS                        | CASE SIZE/WEIGHT                   |             | 28 x 80 x 100mm (W x H x D) /250g max (without cover)                                       |                    |               |                     |
|                               | COOLING METHOD                     |             | Convection                                                                                  |                    |               |                     |

- \*1 Please contact us about safety approvals for the model with option.  
 \* Avoid prolonged use under over-load.  
 \* Series/Parallel operation with other model is not possible.  
 \* Derating is required when operated with case cover.

## External view



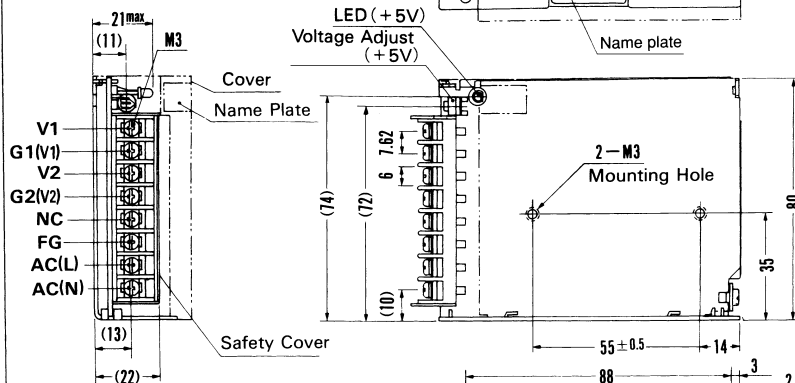
| I/O Connector | Mating Connector |
|---------------|------------------|
| CN1 B3P5-VH   | VHR-5N           |
| CN2 B6P-VH    | VHR-6N           |

(Mfr: J.S.T.)

| Terminal            |
|---------------------|
| Chain : SVH-21-P1.1 |
| Loose : BVH-21-P1.1 |

(Mfr: J.S.T.)

Connector type



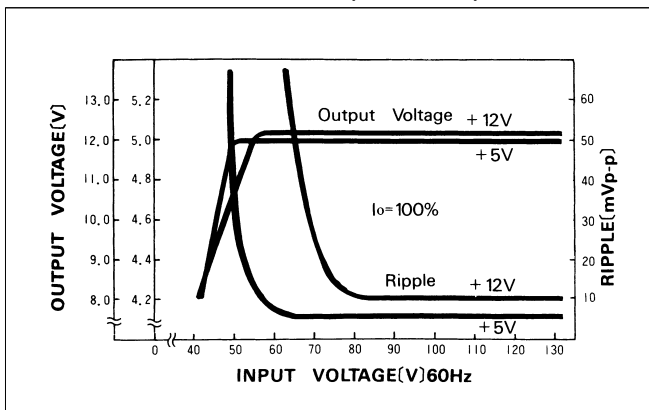
- ※Weight: 250g or less (without cover)
- ※Cover is optional
- ※Tolerance:  $\pm 1$
- ※Dimensions in mm.

Barrier strip type

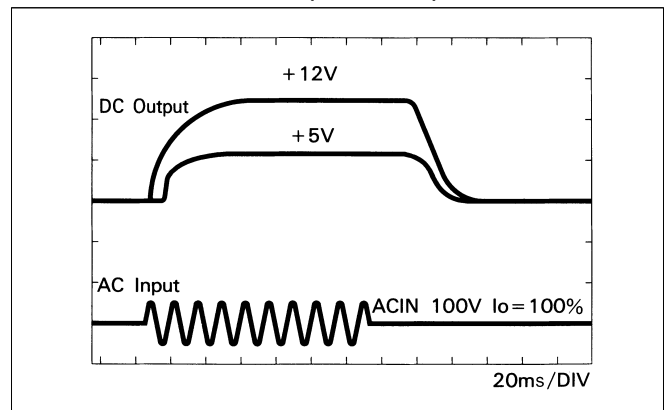
※Mounting torque : 0.6N·m (6.3kgf·cm) max

## Performance data

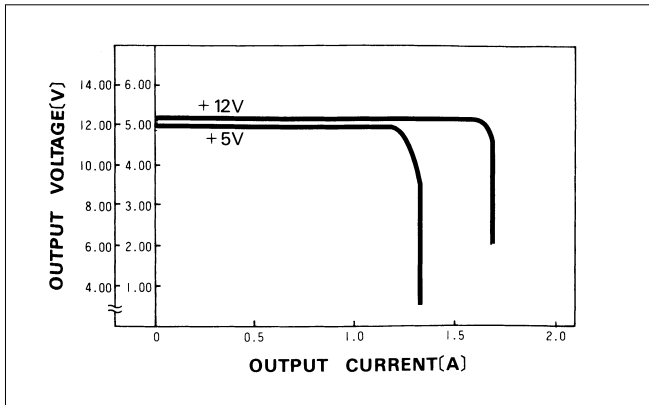
## ■STATIC CHARACTERISTICS (RMB15A-1)



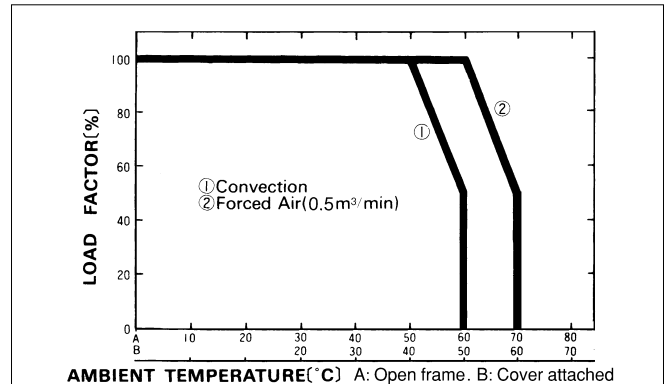
## ■RISE TIME &amp; FALL TIME (RMB15A-1)



## ■OVERCURRENT CHARACTERISTICS (RMB15A-1)



## ■DERATING CURVE



AMBIENT TEMPERATURE(°C) A: Open frame. B: Cover attached

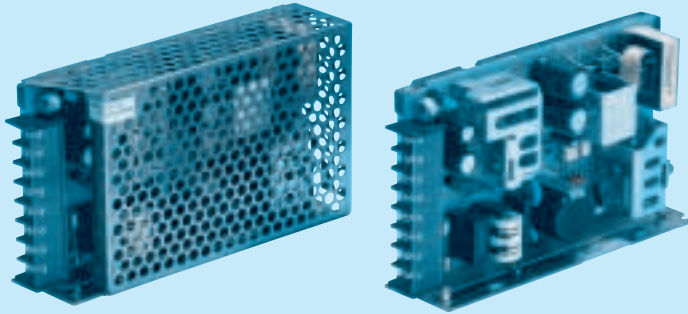
## RMB30A

RMB 30A -1 -□

① ② ③ ④



RoHS



- ① Series name  
 ② Output wattage  
 ③ Output voltage combination  
 ④ Optional \*1  
 J : Connector type  
 N : with Cover

| MODEL     |    | RMB30A-1            | RMB30A-2            |
|-----------|----|---------------------|---------------------|
| DC OUTPUT | V1 | +5V 1.5A            | +5V 1.5A            |
|           | V2 | +12V 2.0(Peak 2.8)A | +24V 1.0(Peak 1.4)A |

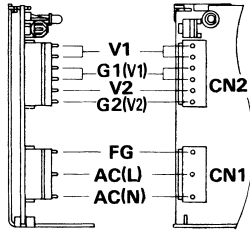
## SPECIFICATIONS

|                               | MODEL                              | RMB30A-1                |                                                                                                         | RMB30A-2           |               |                    |
|-------------------------------|------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------|--------------------|---------------|--------------------|
| INPUT                         | VOLTAGE[V]                         |                         | AC85 - 132 1 $\phi$ or DC110 - 170                                                                      |                    |               |                    |
|                               | CURRENT[A]                         | ACIN 100V               | 0.9typ (Io=100%)                                                                                        |                    |               |                    |
|                               | FREQUENCY[Hz]                      |                         | 47 - 440 or DC                                                                                          |                    |               |                    |
|                               | EFFICIENCY[%]                      | ACIN 100V               | 69typ (Io=100%)                                                                                         |                    |               |                    |
|                               | INRUSH CURRENT[A]                  | ACIN 100V               | 30typ (Io=100%) (At cold start)                                                                         |                    |               |                    |
| OUTPUT                        | VOLTAGE[V]                         |                         | +5                                                                                                      | +12                | +5            | +24                |
|                               | CURRENT[A]                         |                         | 0 - 1.5                                                                                                 | 0 - 2.0 (Peak 2.8) | 0 - 1.5       | 0 - 1.0 (Peak 1.4) |
|                               | LINE REGULATION[mV]                |                         | 20max                                                                                                   | 48max              | 20max         | 96max              |
|                               | LOAD REGULATION[mV]                |                         | 150max                                                                                                  | 100max             | 150max        | 150max             |
|                               | RIPPLE[mVp-p]                      | 0 to +50 $^{\circ}$ C   | 100max                                                                                                  | 120max             | 100max        | 120max             |
|                               |                                    | -10 - 0 $^{\circ}$ C    | 140max                                                                                                  | 160max             | 140max        | 160max             |
|                               | RIPPLE NOISE[mVp-p]                | 0 to +50 $^{\circ}$ C   | 120max                                                                                                  | 150max             | 120max        | 150max             |
|                               |                                    | -10 - 0 $^{\circ}$ C    | 160max                                                                                                  | 180max             | 160max        | 180max             |
|                               | TEMPERATURE REGULATION[mV]         | 0 to +50 $^{\circ}$ C   | 150max                                                                                                  | 120max             | 150max        | 240max             |
|                               |                                    | -10 to +50 $^{\circ}$ C | 180max                                                                                                  | 150max             | 180max        | 290max             |
|                               | START-UP TIME[ms]                  |                         | 100max (ACIN 85V, Io=100%)                                                                              |                    |               |                    |
|                               | HOLD-UP TIME[ms]                   |                         | 10typ (ACIN 85V, Io=100%, 0 to +50 $^{\circ}$ C) 20typ (ACIN 100V, Io=100%, 0 to +50 $^{\circ}$ C)      |                    |               |                    |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] |                         | 5.00 - 5.25                                                                                             | Fixed              | 5.00 - 5.25   | Fixed              |
| OUTPUT VOLTAGE SETTING[V]     |                                    | ——                      | 11.40 - 12.60                                                                                           | ——                 | 22.80 - 25.20 |                    |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION             |                         | Works over 105% of rating (peak current for V2) and recovers automatically                              |                    |               |                    |
|                               | OVERVOLTAGE PROTECTION             |                         | Works at 115 - 140% of rating (+5V)                                                                     |                    |               |                    |
|                               | OPERATING INDICATION               |                         | LED (Green)                                                                                             |                    |               |                    |
| ISOLATION                     | INPUT-OUTPUT                       |                         | AC2,000V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                                         |                    |               |                    |
|                               | INPUT-FG, COVER                    |                         | AC2,000V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                                         |                    |               |                    |
|                               | OUTPUT-FG, COVER                   |                         | AC500V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                                           |                    |               |                    |
|                               | OUTPUT-OUTPUT(V1-V2)               |                         | AC100V 1minute, DC100V 10M $\Omega$ min (At Room Temperature)                                           |                    |               |                    |
| ENVIRONMENT                   | OPERATING TEMP.,HUMID.AND ALTITUDE |                         | -10 to +60 $^{\circ}$ C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max |                    |               |                    |
|                               | STORAGE TEMP.,HUMID.AND ALTITUDE   |                         | -20 to +75 $^{\circ}$ C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max                           |                    |               |                    |
|                               | VIBRATION                          |                         | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis             |                    |               |                    |
|                               | IMPACT                             |                         | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis                                            |                    |               |                    |
| SAFETY AND NOISE REGULATIONS  | AGENCY APPROVALS                   |                         | UL60950-1, C-UL Complies with DEN-AN                                                                    |                    |               |                    |
|                               | CONDUCTED NOISE                    |                         | Complies with FCC-B, VCCI-B                                                                             |                    |               |                    |
| OTHERS                        | CASE SIZE/WEIGHT                   |                         | 31 x80 x135mm (W xH xD) /350g max (without cover)                                                       |                    |               |                    |
|                               | COOLING METHOD                     |                         | Convection                                                                                              |                    |               |                    |

- \*1 Please contact us about safety approvals for the model with option.  
 \* Avoid prolonged use under over-load.  
 \* Series/Parallel operation with other model is not possible.  
 \* Derating is required when operated with case cover.

## External view

RMB



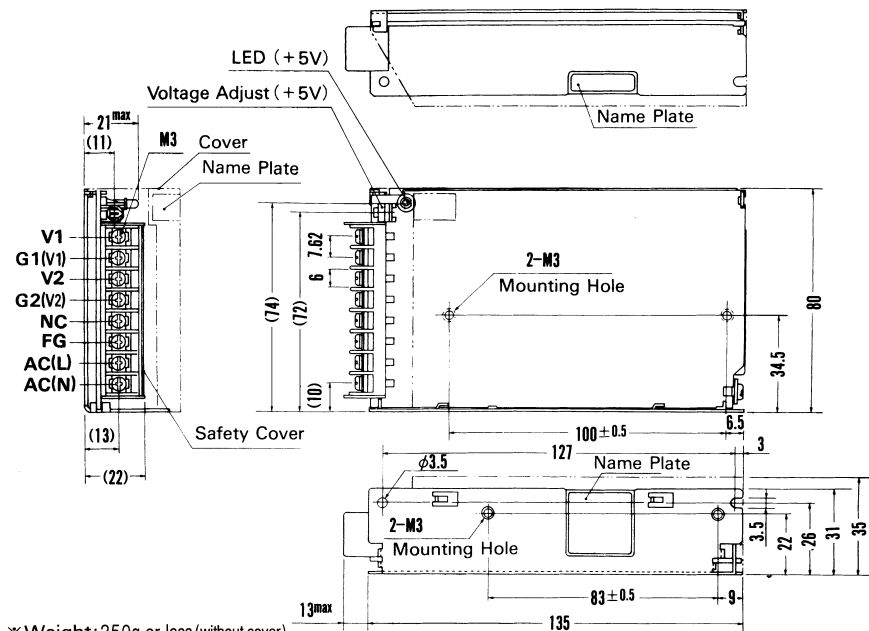
| I/O Connector | Mating Connector |
|---------------|------------------|
| CN1 B3P5-VH   | VHR-5N           |
| CN2 B6P-VH    | VHR-6N           |

(Mfr: J.S.T.)

| Terminal            |
|---------------------|
| Chain : SVH-21-P1.1 |
| Loose : BVH-21-P1.1 |

(Mfr: J.S.T.)

Connector type



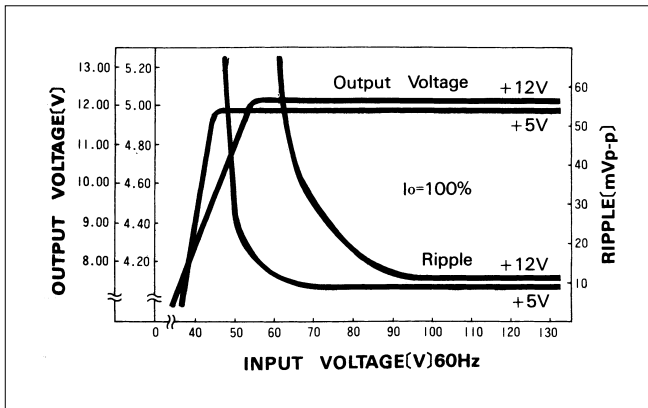
※ Weight: 350g or less (without cover)  
 ※ Cover is optional  
 ※ Tolerance:  $\pm 1$   
 ※ Dimensions in mm.

※ Mounting torque : 0.6N·m (6.3kgf·cm) max

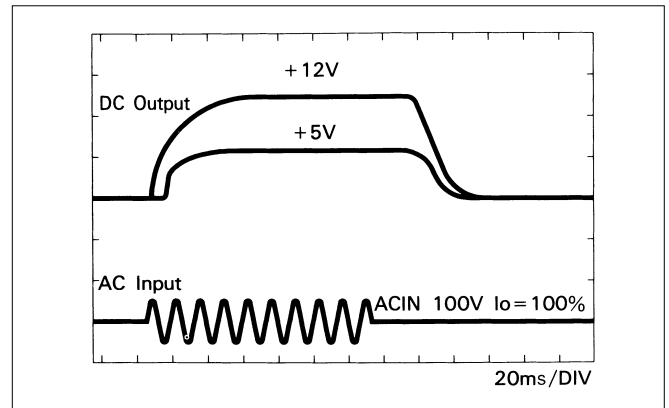
Barrier strip type

## Performance data

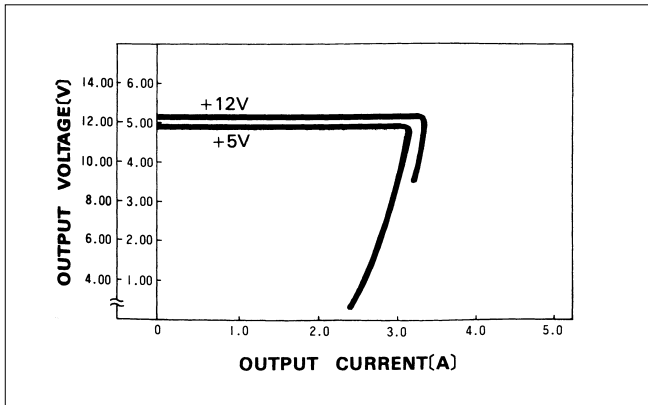
## ■ STATIC CHARACTERISTICS (RMB30A-1)



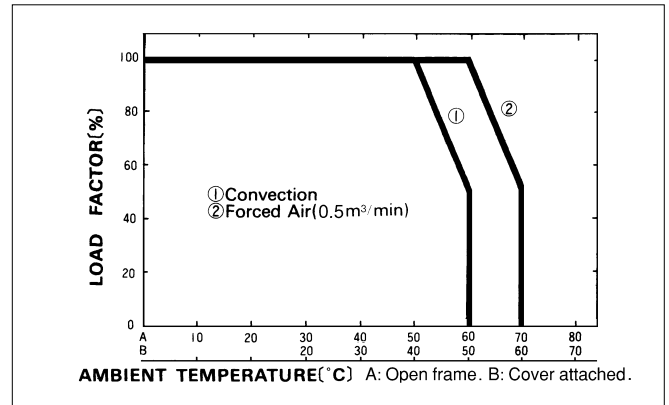
## ■ RISE TIME &amp; FALL TIME (RMB30A-1)



## ■ OVERCURRENT CHARACTERISTICS (RMB30A-1)



## ■ DERATING CURVE



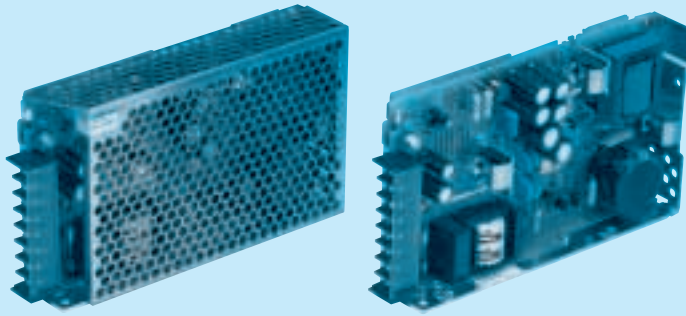
## RMB50A

RMB 50A -1 -□

① ② ③ ④



RoHS



- ① Series name  
 ② Output wattage  
 ③ Output voltage combination  
 ④ Optional \*1  
 G : Low leakage current  
 J : Connector type  
 N : with Cover

| MODEL     |    | RMB50A-1          | RMB50A-2          |
|-----------|----|-------------------|-------------------|
| DC OUTPUT | V1 | +5V 1.5A          | +5V 1.5A          |
|           | V2 | +12V 3.6(Peak 4)A | +24V 1.8(Peak 2)A |

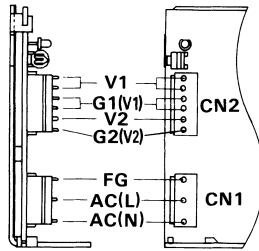
## SPECIFICATIONS

|                               | MODEL                              | RMB50A-1                |                                                                                                         | RMB50A-2         |               |                  |
|-------------------------------|------------------------------------|-------------------------|---------------------------------------------------------------------------------------------------------|------------------|---------------|------------------|
| INPUT                         | VOLTAGE[V]                         |                         | AC85 - 132 1 $\phi$ or DC110 - 170                                                                      |                  |               |                  |
|                               | CURRENT[A]                         | ACIN 100V               | 1.4typ (Io=100%)                                                                                        |                  |               |                  |
|                               | FREQUENCY[Hz]                      |                         | 47 - 440 or DC                                                                                          |                  |               |                  |
|                               | EFFICIENCY[%]                      | ACIN 100V               | 74typ (Io=100%)                                                                                         |                  |               |                  |
|                               | INRUSH CURRENT[A]                  | ACIN 100V               | 30typ (Io=100%) (At cold start)                                                                         |                  |               |                  |
| OUTPUT                        | VOLTAGE[V]                         |                         | +5                                                                                                      | +12              | +5            | +24              |
|                               | CURRENT[A]                         |                         | 0 - 1.5                                                                                                 | 0 - 3.6 (Peak 4) | 0 - 1.5       | 0 - 1.8 (Peak 2) |
|                               | LINE REGULATION[mV]                |                         | 20max                                                                                                   | 48max            | 20max         | 96max            |
|                               | LOAD REGULATION[mV]                |                         | 150max                                                                                                  | 100max           | 150max        | 150max           |
|                               | RIPPLE[mVp-p]                      | 0 to +50 $^{\circ}$ C   | 80max                                                                                                   | 120max           | 80max         | 120max           |
|                               |                                    | -10 - 0 $^{\circ}$ C    | 140max                                                                                                  | 160max           | 140max        | 160max           |
|                               | RIPPLE NOISE[mVp-p]                | 0 to +50 $^{\circ}$ C   | 120max                                                                                                  | 150max           | 120max        | 150max           |
|                               |                                    | -10 - 0 $^{\circ}$ C    | 160max                                                                                                  | 180max           | 160max        | 180max           |
|                               | TEMPERATURE REGULATION[mV]         | 0 to +50 $^{\circ}$ C   | 150max                                                                                                  | 120max           | 150max        | 240max           |
|                               |                                    | -10 to +50 $^{\circ}$ C | 180max                                                                                                  | 150max           | 180max        | 290max           |
|                               | START-UP TIME[ms]                  |                         | 100max (ACIN 85V, Io=100%)                                                                              |                  |               |                  |
|                               | HOLD-UP TIME[ms]                   |                         | 10typ (ACIN 85V, Io=100%, 0 to +50 $^{\circ}$ C) 20typ (ACIN 100V, Io=100%, 0 to +50 $^{\circ}$ C)      |                  |               |                  |
|                               | OUTPUT VOLTAGE ADJUSTMENT RANGE[V] |                         | 5.00 - 5.25                                                                                             | Fixed            | 5.00 - 5.25   | Fixed            |
| OUTPUT VOLTAGE SETTING[V]     |                                    | —                       | 11.40 - 12.60                                                                                           | —                | 22.80 - 25.20 |                  |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION             |                         | Works over 105% of rating (peak current for V2) and recovers automatically                              |                  |               |                  |
|                               | OVERVOLTAGE PROTECTION             |                         | Works at 115 - 140% of rating (+5V)                                                                     |                  |               |                  |
|                               | OPERATING INDICATION               |                         | LED (Green)                                                                                             |                  |               |                  |
| ISOLATION                     | INPUT-OUTPUT                       |                         | AC2,000V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                                         |                  |               |                  |
|                               | INPUT-FG, COVER                    |                         | AC2,000V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                                         |                  |               |                  |
|                               | OUTPUT-FG, COVER                   |                         | AC500V 1minute, DC500V 50M $\Omega$ min (At Room Temperature)                                           |                  |               |                  |
|                               | OUTPUT-OUTPUT(V1-V2)               |                         | AC100V 1minute, DC100V 10M $\Omega$ min (At Room Temperature)                                           |                  |               |                  |
| ENVIRONMENT                   | OPERATING TEMP.,HUMID.AND ALTITUDE |                         | -10 to +65 $^{\circ}$ C, 20 - 90%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max |                  |               |                  |
|                               | STORAGE TEMP.,HUMID.AND ALTITUDE   |                         | -20 to +75 $^{\circ}$ C, 20 - 90%RH (Non condensing), 9,000m (30,000feet) max                           |                  |               |                  |
|                               | VIBRATION                          |                         | 10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axis             |                  |               |                  |
|                               | IMPACT                             |                         | 196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis                                            |                  |               |                  |
| SAFETY AND NOISE REGULATIONS  | AGENCY APPROVALS                   |                         | UL60950-1, C-UL Complies with DEN-AN                                                                    |                  |               |                  |
|                               | CONDUCTED NOISE                    |                         | Complies with FCC-B, VCCI-B                                                                             |                  |               |                  |
| OTHERS                        | CASE SIZE/WEIGHT                   |                         | 31 x93 x155mm (W xH xD) /350g max (without cover)                                                       |                  |               |                  |
|                               | COOLING METHOD                     |                         | Convection                                                                                              |                  |               |                  |

- \*1 Please contact us about safety approvals for the model with option.  
 \* Avoid prolonged use under over-load.  
 \* Series/Parallel operation with other model is not possible.  
 \* Derating is required when operated with case cover.

## External view

RMB



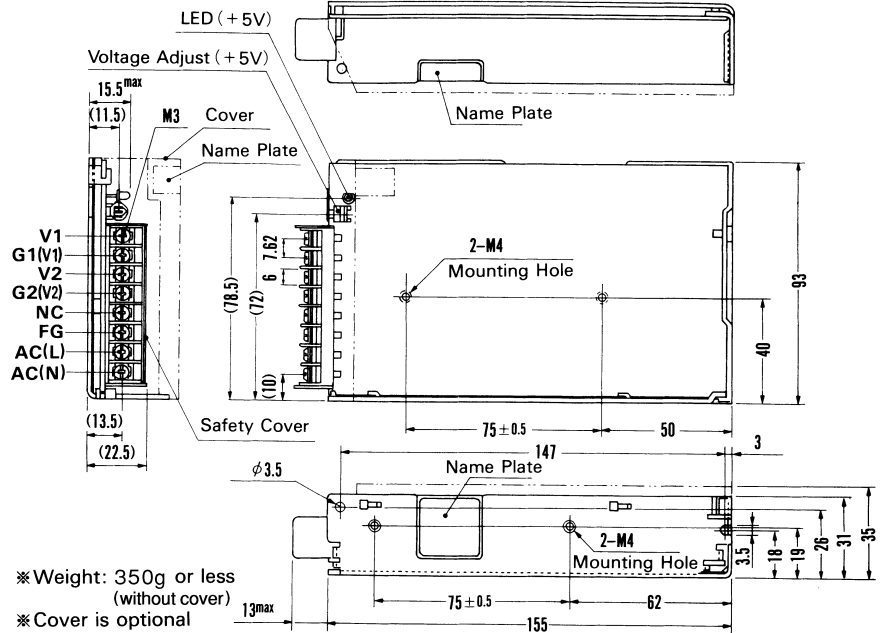
| I/O Connector | Mating Connector |
|---------------|------------------|
| CN1           | B3P5-VH          |
| CN2           | B6P-VH           |

(Mfr.: J.S.T.)

| Terminal            |
|---------------------|
| Chain : SVH-21-P1.1 |
| Loose : BVH-21-P1.1 |

(Mfr.: J.S.T.)

Connector type



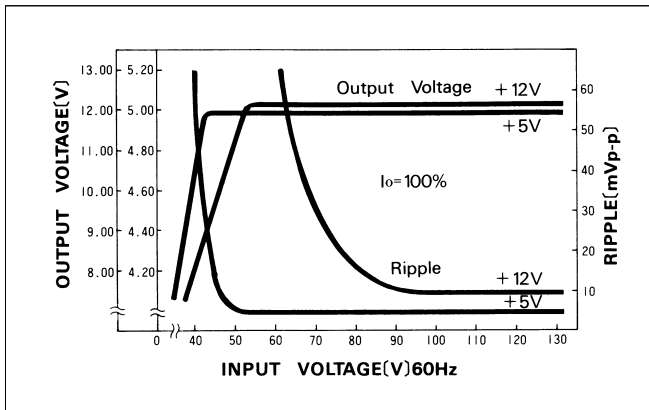
- ※ Weight: 350g or less (without cover)
- ※ Cover is optional
- ※ Tolerance:  $\pm 1$
- ※ Dimensions in mm.

※ Mounting torque : 1.2N·m (12.8kgf·cm) max

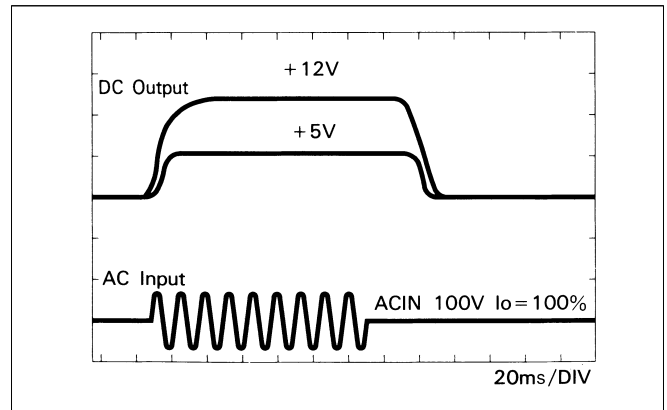
Barrier strip type

## Performance data

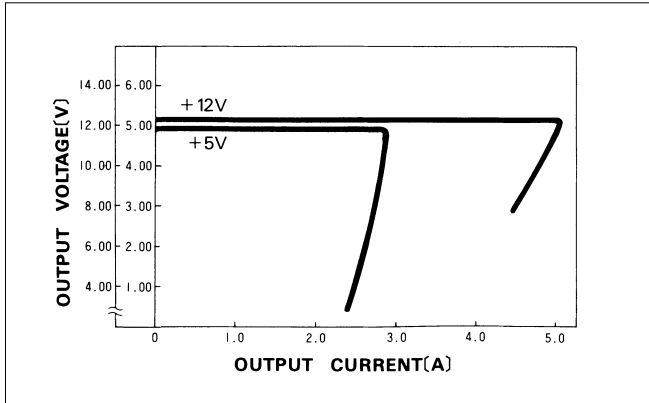
## ■ STATIC CHARACTERISTICS (RMB50A-1)



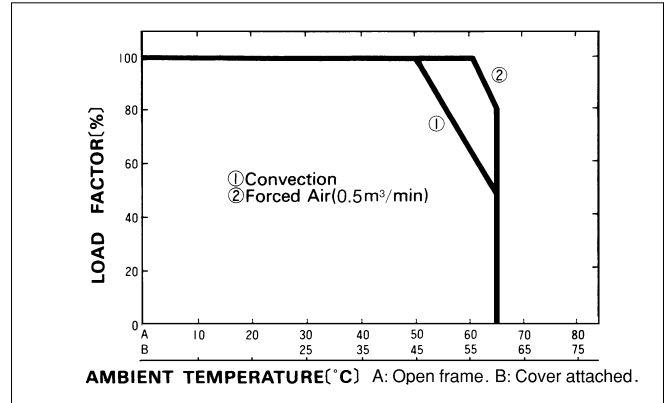
## ■ RISE TIME &amp; FALL TIME (RMB50A-1)



## ■ OVERCURRENT CHARACTERISTICS (RMB50A-1)



## ■ DERATING CURVE



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