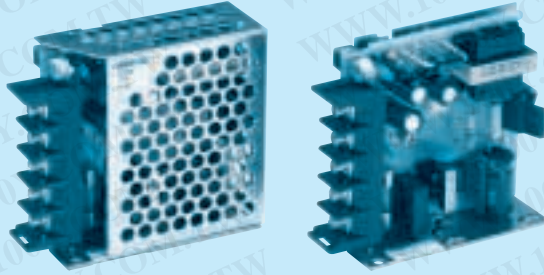


# R10A

R 10A -5 -□

① ② ③ ④

RoHS



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

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

| MODEL                 | R10A-3  | R10A-5  | R10A-12  | R10A-15  | R10A-24  |
|-----------------------|---------|---------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 6       | 10      | 10.8     | 10.5     | 12       |
| DC OUTPUT             | 3V 2.0A | 5V 2.0A | 12V 0.9A | 15V 0.7A | 24V 0.5A |

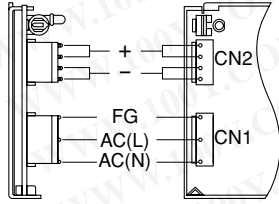
## SPECIFICATIONS

|                                    | MODEL  | R10A-3   | R10A-5  | R10A-12     | R10A-15     | R10A-24 |        |
|------------------------------------|--|--|---|-------------|-------------|---------|--------|
| INPUT                              | VOLTAGE[V]   | AC85 - 132 1 φ or DC110 - 170  |   |             |             |         |        |
|                                    | CURRENT[A]   | ACIN 100V  | 0.24typ (Io=100%)                                   |             |             |         |        |
|                                    | FREQUENCY[Hz]  | 47 - 440 or DC   |   |             |             |         |        |
|                                    | EFFICIENCY[%]  |  | 64typ   | 70typ       | 75typ       | 76typ   | 78typ  |
|                                    | INRUSH CURRENT[A]  | ACIN 100V  | 20typ (Io=100%) (At cold start)                     |             |             |         |        |
|                                    | LEAKAGE CURRENT[ma]  | 0.5max (According to UL, CSA and DEN-AN)   |   |             |             |         |        |
| OUTPUT                             | VOLTAGE[V]   | 3  | 5   | 12          | 15          | 24      |        |
|                                    | CURRENT[A]   | 2.0  | 2.0   | 0.9         | 0.7         | 0.5     |        |
|                                    | LINE REGULATION[mV]  | 20max  | 20max   | 48max       | 60max       | 96max   |        |
|                                    | LOAD REGULATION[mV]  | 40max  | 40max   | 100max      | 120max      | 150max  |        |
|                                    | RIPPLE[mVp-p]  | 0 to +50°C   | 80max   | 80max       | 120max      | 120max  | 120max |
|                                    |  | -10 - 0°C  | 140max  | 140max      | 160max      | 160max  | 160max |
|                                    | RIPPLE NOISE[mVp-p]  | 0 to +50°C   | 120max  | 120max      | 150max      | 150max  | 150max |
|                                    |  | -10 - 0°C  | 160max  | 160max      | 180max      | 180max  | 180max |
|                                    | TEMPERATURE REGULATION[mV]   | 0 to +50°C   | 50max   | 50max       | 120max      | 150max  | 240max |
|                                    |  | -10 to +50°C   | 60max   | 60max       | 150max      | 180max  | 290max |
| DRIFT[mV]                          | *1   | 20max  | 20max   | 48max       | 60max       | 96max   |        |
| START-UP TIME[ms]                  | 100max (ACIN 85V, Io=100%)   |  |   |             |             |         |        |
| HOLD-UP TIME[ms]                   | 10typ (ACIN 85V, Io=100%, 0 to +50°C) 20typ (ACIN 100V, Io=100%, 0 to +50°C) |  |   |             |             |         |        |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 2.85 - 3.6   | 4.5 - 5.5  | 10.8 - 13.2   | 13.5 - 16.5 | 21.6 - 26.4 |         |        |
| PROTECTION CIRCUIT AND OTHERS      | OVERCURRENT PROTECTION   | Works over 105% of rating and recovers automatically (ACIN 100V)                             |   |             |             |         |        |
|                                    | OVERVOLTAGE PROTECTION   | 4.00V min  | Works over 115% of rating (By zener diode clamping) |             |             |         |        |
|                                    | OPERATING INDICATION   | LED (Green)  |   |             |             |         |        |
|                                    | REMOTE SENSING   | Not provided   |   |             |             |         |        |
|                                    | REMOTE ON/OFF  | Not provided   |   |             |             |         |        |
| ISOLATION                          | INPUT-OUTPUT   | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)           |   |             |             |         |        |
|                                    | INPUT-FG, COVER  | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)           |   |             |             |         |        |
|                                    | OUTPUT-FG, COVER   | AC500V 1minute, Cutoff current = 100mA max, DC500V 50MΩ min (At Room Temperature)            |   |             |             |         |        |
| ENVIRONMENT                        | OPERATING TEMP., HUMID. AND ALTITUDE   | -10 to +60°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  | 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   | 26 × 68 × 68mm (W × H × D) / 150g max (without cover)  |   |             |             |         |        |
|                                    | COOLING METHOD   | Convection   |   |             |             |         |        |

\*1 Drift is the change 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.  
 \*2 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

R



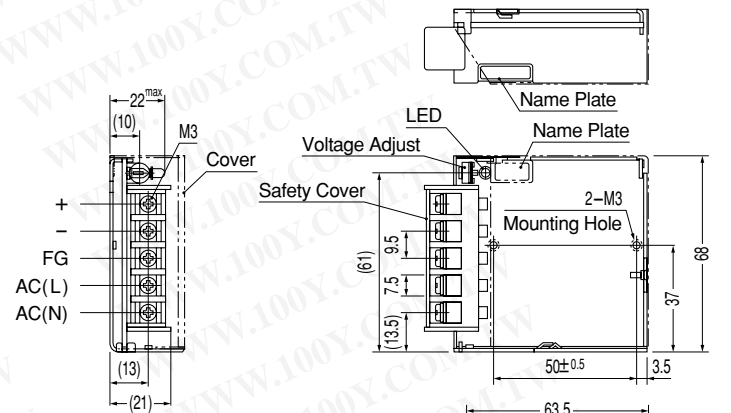
| I/O Connector | Mating Connector |
|---------------|------------------|
| CN1           | B3P5-VH VHR-5N   |
| CN2           | B4P-VH VHR-4N    |

(Mfr : J.S.T.)

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

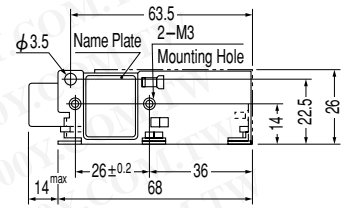
(Mfr : J.S.T.)

Connector type



- ※Weight : 150g or less (without cover)
- ※Cover is optional
- ※Tolerance : ±1
- ※Dimensions in mm.

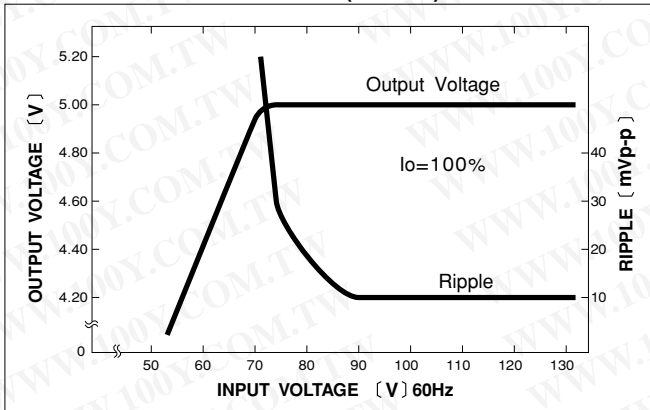
Barrier strip type



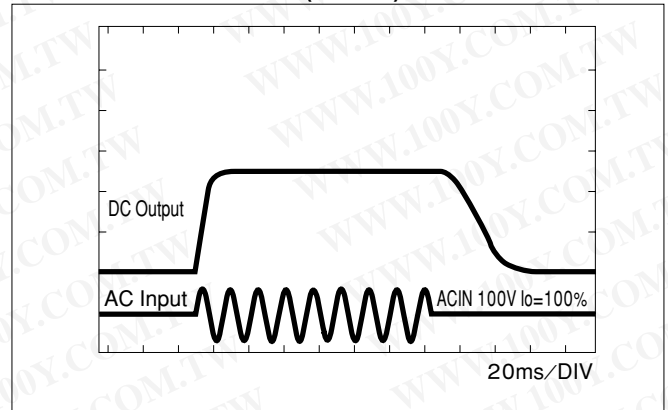
Mounting torque: 0.6N·m (6.3kgf·cm) max

## Performance data

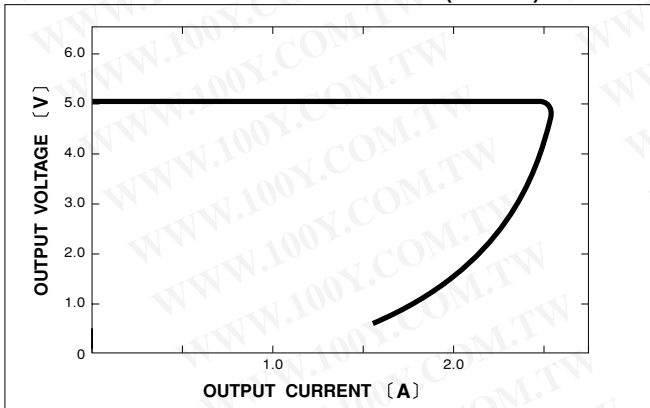
### ■ STATIC CHARACTERISTICS (R10A-5)



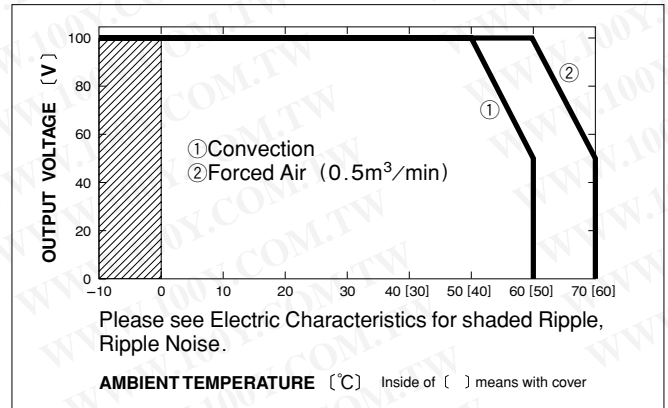
### ■ RISE TIME & FALL TIME (R10A-5)



### ■ OVERCURRENT CHARACTERISTICS (R10A-5)



### ■ DERATING CURVE

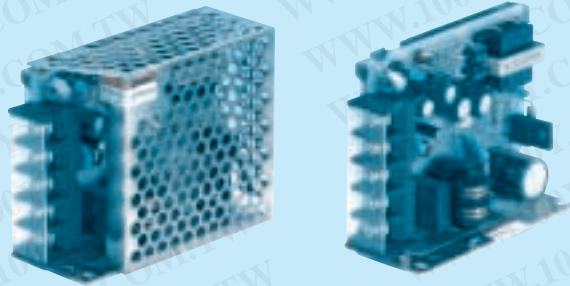


# R15A

R 15A -5 -□

① ② ③ ④

RoHS



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

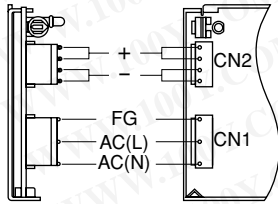
| MODEL                 | R15A-3  | R15A-5 | R15A-9  | R15A-12  | R15A-15  | R15A-18   | R15A-24  |
|-----------------------|---------|--------|---------|----------|----------|-----------|----------|
| MAX OUTPUT WATTAGE[W] | 9       | 15     | 15.3    | 15.6     | 15       | 15.3      | 16.8     |
| DC OUTPUT             | 3V 3.0A | 5V 3A  | 9V 1.7A | 12V 1.3A | 15V 1.0A | 18V 0.85A | 24V 0.7A |

## SPECIFICATIONS

|                                    | MODEL                              | R15A-3   | R15A-5  | R15A-9    | R15A-12     | R15A-15     | R15A-18     | R15A-24     |        |
|------------------------------------|------------------------------------|--|---|-----------|-------------|-------------|-------------|-------------|--------|
| INPUT                              | VOLTAGE[V]                         | AC85 - 132 1 φ or DC110 - 170  |   |           |             |             |             |             |        |
|                                    | CURRENT[A]                         | ACIN 100V  | 0.37typ (Io=100%)                                   |           |             |             |             |             |        |
|                                    | FREQUENCY[Hz]                      | 47 - 440 or DC   |   |           |             |             |             |             |        |
|                                    | EFFICIENCY[%]                      |  | 68typ   | 72typ     | 73typ       | 75typ       | 75typ       | 76typ       | 78typ  |
|                                    | INRUSH CURRENT[A]                  | ACIN 100V  | 20typ (Io=100%) (At cold start)                     |           |             |             |             |             |        |
|                                    | LEAKAGE CURRENT[ma]                |  | 0.5max (According to UL, CSA and DEN-AN)            |           |             |             |             |             |        |
| OUTPUT                             | VOLTAGE[V]                         | 3  | 5   | 9         | 12          | 15          | 18          | 24          |        |
|                                    | CURRENT[A]                         | 3.0  | 3.0   | 1.7       | 1.3         | 1.0         | 0.85        | 0.7         |        |
|                                    | LINE REGULATION[mV]                | 20max  | 20max   | 36max     | 48max       | 60max       | 72max       | 96max       |        |
|                                    | LOAD REGULATION[mV]                | 40max  | 40max   | 100max    | 100max      | 120max      | 120max      | 150max      |        |
|                                    | RIPPLE[mVp-p]                      | 0 to +50°C   | 80max   | 80max     | 120max      | 120max      | 120max      | 120max      | 120max |
|                                    |                                    | -10 - 0°C  | 140max  | 140max    | 160max      | 160max      | 160max      | 160max      | 160max |
|                                    | RIPPLE NOISE[mVp-p]                | 0 to +50°C   | 120max  | 120max    | 150max      | 150max      | 150max      | 150max      | 150max |
|                                    |                                    | -10 - 0°C  | 160max  | 160max    | 180max      | 180max      | 180max      | 180max      | 180max |
|                                    | TEMPERATURE REGULATION[mV]         | 0 to +50°C   | 50max   | 50max     | 90max       | 120max      | 150max      | 180max      | 240max |
|                                    |                                    | -10 to +50°C   | 60max   | 60max     | 120max      | 150max      | 180max      | 200max      | 290max |
| DRIFT[mV]                          | *1                                 | 20max  | 20max   | 36max     | 48max       | 60max       | 72max       | 96max       |        |
| START-UP TIME[ms]                  |                                    | 100max (ACIN 85V, Io=100%)   |   |           |             |             |             |             |        |
| HOLD-UP TIME[ms]                   |                                    | 10typ (ACIN 85V, Io=100%, 0 to +50°C) 20typ (ACIN 100V, Io=100%, 0 to +50°C)                 |   |           |             |             |             |             |        |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] |                                    | 2.85 - 3.6   | 4.5 - 5.5   | 8.1 - 9.9 | 10.8 - 13.2 | 13.5 - 16.5 | 16.2 - 19.8 | 21.6 - 26.4 |        |
| PROTECTION CIRCUIT AND OTHERS      | OVERCURRENT PROTECTION             | Works over 105% of rating and recovers automatically (ACIN 100V)                             |   |           |             |             |             |             |        |
|                                    | OVERVOLTAGE PROTECTION             | 4.00V min  | Works over 115% of rating (By zener diode clamping) |           |             |             |             |             |        |
|                                    | OPERATING INDICATION               | LED (Green)  |   |           |             |             |             |             |        |
|                                    | REMOTE SENSING                     | Not provided   |   |           |             |             |             |             |        |
|                                    | REMOTE ON/OFF                      | Not provided   |   |           |             |             |             |             |        |
| ISOLATION                          | INPUT-OUTPUT                       | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)           |   |           |             |             |             |             |        |
|                                    | INPUT-FG, COVER                    | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)           |   |           |             |             |             |             |        |
|                                    | OUTPUT-FG, COVER                   | AC500V 1minute, Cutoff current = 100mA max, DC500V 50MΩ min (At Room Temperature)            |   |           |             |             |             |             |        |
| ENVIRONMENT                        | OPERATING TEMP.,HUMID.AND ALTITUDE | -10 to +60°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                          | 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                   | 30 × 69 × 84mm (W × H × D) / 200g max (without cover)  |   |           |             |             |             |             |        |
|                                    | COOLING METHOD                     | Convection   |   |           |             |             |             |             |        |

\*1 Drift is the change 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.  
 \*2 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



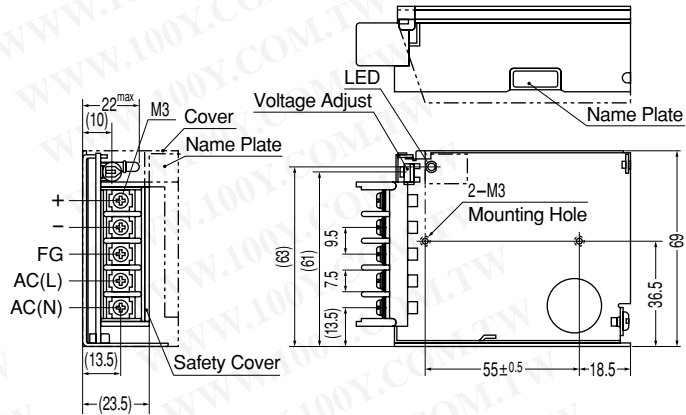
| I/O Connector | Mating Housing |        |
|---------------|----------------|--------|
| CN1           | B3P5-VH        | VHR-5N |
| CN2           | B4P-VH         | VHR-4N |

(Mfr : J.S.T.)

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

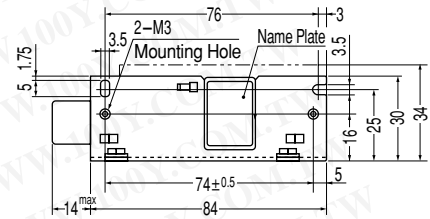
(Mfr : J.S.T.)

Connector type



- ※Weight : 200g or less (without cover)
- ※Cover is optional
- ※Tolerance :  $\pm 1$
- ※Dimensions in mm.

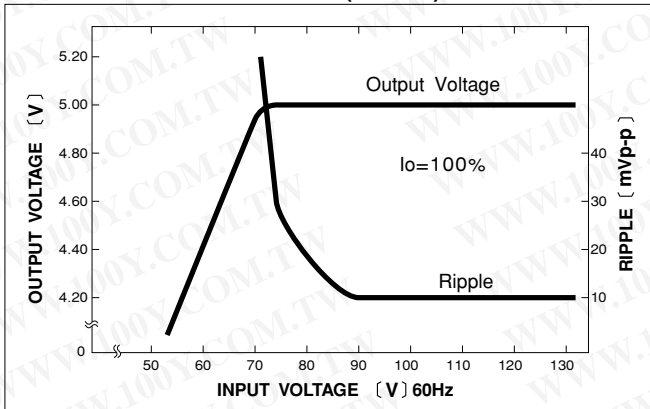
Barrier strip type



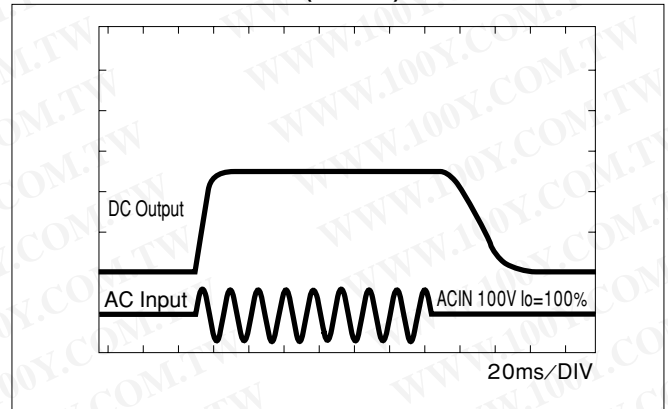
Mounting torque: 0.6N·m (6.3kgf·cm) max

## Performance data

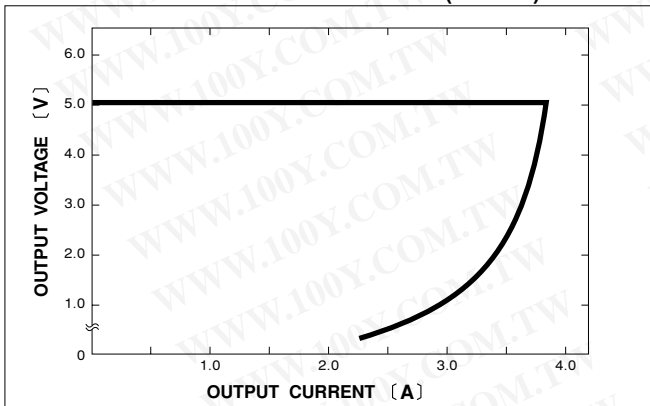
### ■ STATIC CHARACTERISTICS (R15A-5)



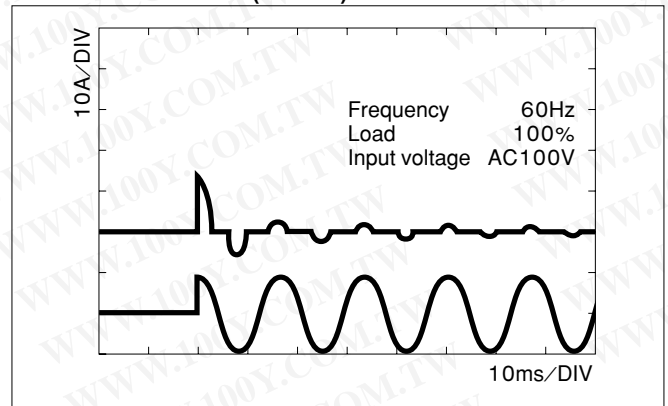
### ■ RISE TIME & FALL TIME (R15A-5)



### ■ OVERCURRENT CHARACTERISTICS (R15A-5)



### ■ INRUSH CURRENT (R15A-5)

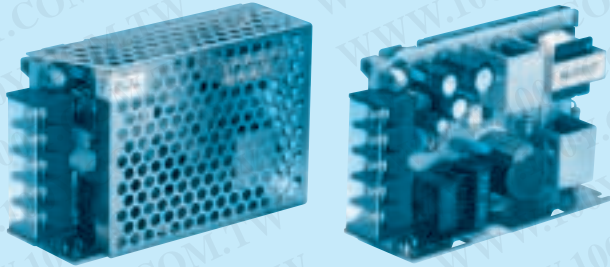


# R25A

R 25A -5 -□

① ② ③ ④

RoHS



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

| MODEL                 | R25A-3  | R25A-5 | R25A-9  | R25A-12  | R25A-15  | R25A-18  | R25A-24  |
|-----------------------|---------|--------|---------|----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 15      | 25     | 25.2    | 25.2     | 25.5     | 25.2     | 26.4     |
| DC OUTPUT             | 3V 5.0A | 5V 5A  | 9V 2.8A | 12V 2.1A | 15V 1.7A | 18V 1.4A | 24V 1.1A |

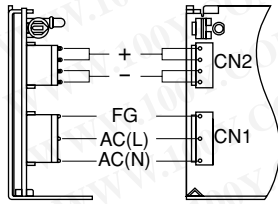
## SPECIFICATIONS

|                                    | MODEL  | R25A-3   | R25A-5                          | R25A-9      | R25A-12     | R25A-15     | R25A-18     | R25A-24 |        |
|------------------------------------|--|--|---------------------------------|-------------|-------------|-------------|-------------|---------|--------|
| INPUT                              | VOLTAGE[V]   | AC85 - 132 1 φ or DC110 - 170  |                                 |             |             |             |             |         |        |
|                                    | CURRENT[A]   | ACIN 100V  | 0.58typ (Io=100%)               |             |             |             |             |         |        |
|                                    | FREQUENCY[Hz]  | 47 - 440 or DC   |                                 |             |             |             |             |         |        |
|                                    | EFFICIENCY[%]  |  | 69typ                           | 73typ       | 75typ       | 76typ       | 76typ       | 77typ   | 79typ  |
|                                    | INRUSH CURRENT[A]  | ACIN 100V  | 20typ (Io=100%) (At cold start) |             |             |             |             |         |        |
|                                    | LEAKAGE CURRENT[ma]  | 0.5max (According to UL, CSA and DEN-AN)   |                                 |             |             |             |             |         |        |
| OUTPUT                             | VOLTAGE[V]   | 3  | 5                               | 9           | 12          | 15          | 18          | 24      |        |
|                                    | CURRENT[A]   | 5.0  | 5.0                             | 2.8         | 2.1         | 1.7         | 1.4         | 1.1     |        |
|                                    | LINE REGULATION[mV]  | 20max  | 20max                           | 36max       | 48max       | 60max       | 72max       | 96max   |        |
|                                    | LOAD REGULATION[mV]  | 40max  | 40max                           | 100max      | 100max      | 120max      | 120max      | 150max  |        |
|                                    | RIPPLE[mVp-p]  | 0 to +50°C   | 80max                           | 80max       | 120max      | 120max      | 120max      | 120max  | 120max |
|                                    |  | -10 - 0°C  | 140max                          | 140max      | 160max      | 160max      | 160max      | 160max  | 160max |
|                                    | RIPPLE NOISE[mVp-p]  | 0 to +50°C   | 120max                          | 120max      | 150max      | 150max      | 150max      | 150max  | 150max |
|                                    |  | -10 - 0°C  | 160max                          | 160max      | 180max      | 180max      | 180max      | 180max  | 180max |
|                                    | TEMPERATURE REGULATION[mV]   | 0 to +50°C   | 50max                           | 50max       | 90max       | 120max      | 150max      | 180max  | 240max |
|                                    |  | -10 to +50°C   | 60max                           | 60max       | 120max      | 150max      | 180max      | 200max  | 290max |
| DRIFT[mV]                          | *1   | 20max  | 20max                           | 36max       | 48max       | 60max       | 72max       | 96max   |        |
| START-UP TIME[ms]                  | 200max (ACIN 85V, Io=100%)   |  |                                 |             |             |             |             |         |        |
| HOLD-UP TIME[ms]                   | 10typ (ACIN 85V, Io=100%, 0 to +50°C) 20typ (ACIN 100V, Io=100%, 0 to +50°C) |  |                                 |             |             |             |             |         |        |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 2.85 - 3.6   | 4.5 - 5.5  | 8.1 - 9.9                       | 10.8 - 13.2 | 13.5 - 16.5 | 16.2 - 19.8 | 21.6 - 26.4 |         |        |
| PROTECTION CIRCUIT AND OTHERS      | OVERCURRENT PROTECTION   | Works over 105% of rating and recovers automatically (ACIN 100V)                             |                                 |             |             |             |             |         |        |
|                                    | OVERVOLTAGE PROTECTION   | 4.00 - 5.25V   | Works at 115 - 140% of rating   |             |             |             |             |         |        |
|                                    | OPERATING INDICATION   | LED (Green)  |                                 |             |             |             |             |         |        |
|                                    | REMOTE SENSING   | Not provided   |                                 |             |             |             |             |         |        |
|                                    | REMOTE ON/OFF  | Not provided   |                                 |             |             |             |             |         |        |
| ISOLATION                          | INPUT-OUTPUT   | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)           |                                 |             |             |             |             |         |        |
|                                    | INPUT-FG, COVER  | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)           |                                 |             |             |             |             |         |        |
|                                    | OUTPUT-FG, COVER   | AC500V 1minute, Cutoff current = 100mA max, DC500V 50MΩ min (At Room Temperature)            |                                 |             |             |             |             |         |        |
| ENVIRONMENT                        | OPERATING TEMP.,HUMID.AND ALTITUDE   | -10 to +60°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  | 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 × 69 × 104mm (W × H × D) / 250g max (without cover)                                       |                                 |             |             |             |             |         |        |
|                                    | COOLING METHOD   | Convection   |                                 |             |             |             |             |         |        |

\*1 Drift is the change 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.  
 \*2 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

R



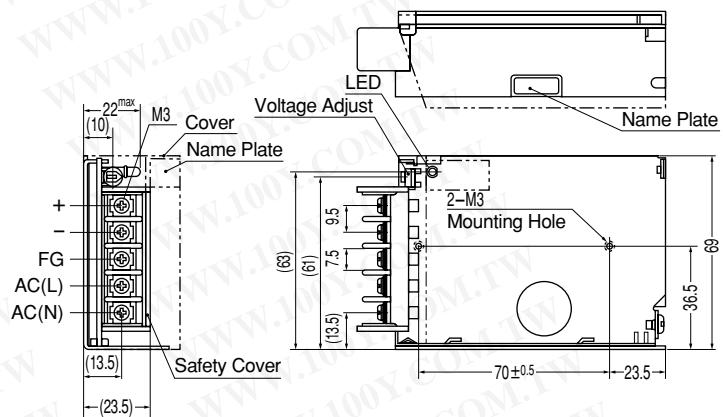
| I/O Connector | Mating Housing |
|---------------|----------------|
| CN1           | B3P5-VH VHR-5N |
| CN2           | B4P-VH VHR-4N  |

(Mfr : J.S.T.)

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

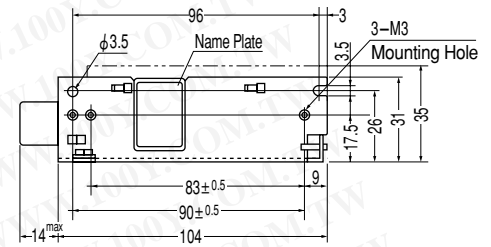
(Mfr : J.S.T.)

Connector type



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

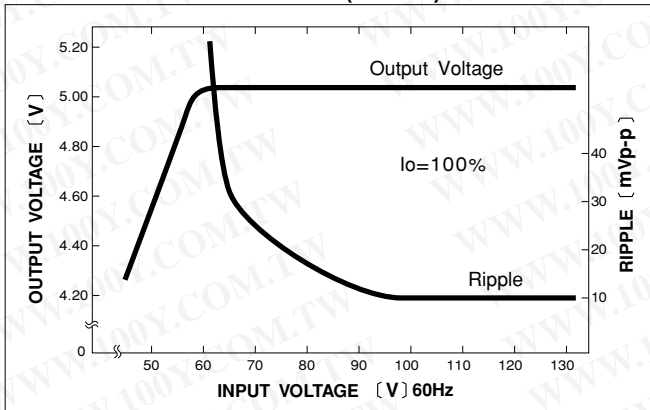
Barrier strip type



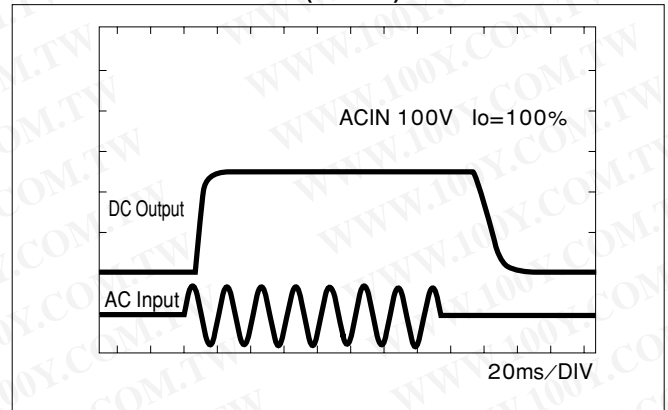
Mounting torque: 0.6N·m (6.3kgf·cm) max

## Performance data

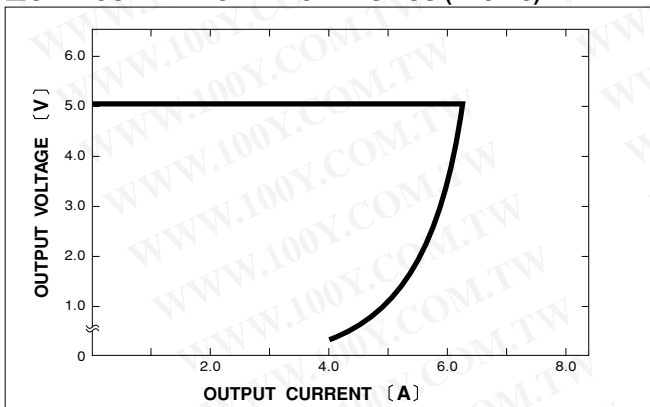
### ■ STATIC CHARACTERISTICS (R25A-5)



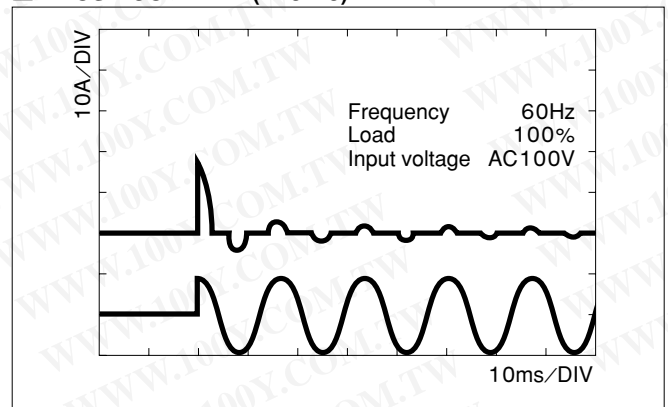
### ■ RISE TIME & FALL TIME (R25A-5)



### ■ OVERCURRENT CHARACTERISTICS (R25A-5)



### ■ INRUSH CURRENT (R25A-5)

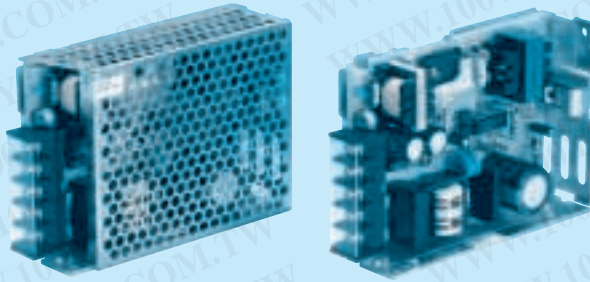


# R50A

R 50A -5 -□

① ② ③ ④

RoHS



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

| MODEL                 | R50A-3 | R50A-5 | R50A-9  | R50A-12  | R50A-15  | R50A-18  | R50A-24  |
|-----------------------|--------|--------|---------|----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 30     | 50     | 50.4    | 50.4     | 51       | 50.4     | 52.8     |
| DC OUTPUT             | 3V 10A | 5V 10A | 9V 5.6A | 12V 4.2A | 15V 3.4A | 18V 2.8A | 24V 2.2A |

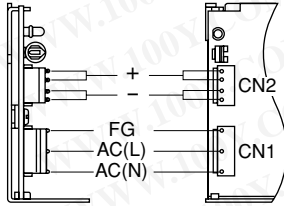
## SPECIFICATIONS

|                                    | MODEL  | R50A-3   | R50A-5                          | R50A-9      | R50A-12     | R50A-15     | R50A-18     | R50A-24 |        |
|------------------------------------|--|--|---------------------------------|-------------|-------------|-------------|-------------|---------|--------|
| INPUT                              | VOLTAGE[V]   | AC85 - 132 1 φ or DC110 - 170  |                                 |             |             |             |             |         |        |
|                                    | CURRENT[A]   | ACIN 100V  | 1.1typ (Io=100%)                |             |             |             |             |         |        |
|                                    | FREQUENCY[Hz]  | 47 - 440 or DC   |                                 |             |             |             |             |         |        |
|                                    | EFFICIENCY[%]  |  | 74typ                           | 78typ       | 79typ       | 80typ       | 81typ       | 82typ   | 83typ  |
|                                    | INRUSH CURRENT[A]  | ACIN 100V  | 30typ (Io=100%) (At cold start) |             |             |             |             |         |        |
|                                    | LEAKAGE CURRENT[ma]  | 0.5max (According to UL, CSA and DEN-AN)   |                                 |             |             |             |             |         |        |
| OUTPUT                             | VOLTAGE[V]   | 3  | 5                               | 9           | 12          | 15          | 18          | 24      |        |
|                                    | CURRENT[A]   | 10   | 10                              | 5.6         | 4.2         | 3.4         | 2.8         | 2.2     |        |
|                                    | LINE REGULATION[mV]  | 20max  | 20max                           | 36max       | 48max       | 60max       | 72max       | 96max   |        |
|                                    | LOAD REGULATION[mV]  | 40max  | 40max                           | 100max      | 100max      | 120max      | 120max      | 150max  |        |
|                                    | RIPPLE[mVp-p]  | 0 to +50°C   | 80max                           | 80max       | 120max      | 120max      | 120max      | 120max  | 120max |
|                                    |  | -10 - 0°C  | 140max                          | 140max      | 160max      | 160max      | 160max      | 160max  | 160max |
|                                    | RIPPLE NOISE[mVp-p]  | 0 to +50°C   | 120max                          | 120max      | 150max      | 150max      | 150max      | 150max  | 150max |
|                                    |  | -10 - 0°C  | 160max                          | 160max      | 180max      | 180max      | 180max      | 180max  | 180max |
|                                    | TEMPERATURE REGULATION[mV]   | 0 to +50°C   | 50max                           | 50max       | 90max       | 120max      | 150max      | 180max  | 240max |
|                                    |  | -10 to +50°C   | 60max                           | 60max       | 120max      | 150max      | 180max      | 200max  | 290max |
| DRIFT[mV]                          | *1   | 20max  | 20max                           | 36max       | 48max       | 60max       | 72max       | 96max   |        |
| START-UP TIME[ms]                  | 200max (ACIN 85V, Io=100%)   |  |                                 |             |             |             |             |         |        |
| HOLD-UP TIME[ms]                   | 10typ (ACIN 85V, Io=100%, 0 to +50°C) 20typ (ACIN 100V, Io=100%, 0 to +50°C) |  |                                 |             |             |             |             |         |        |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 2.85 - 3.6   | 4.5 - 5.5  | 8.1 - 9.9                       | 10.8 - 13.2 | 13.5 - 16.5 | 16.2 - 19.8 | 21.6 - 26.4 |         |        |
| PROTECTION CIRCUIT AND OTHERS      | OVERCURRENT PROTECTION   | Works over 105% of rating and recovers automatically (ACIN 100V)                             |                                 |             |             |             |             |         |        |
|                                    | OVERVOLTAGE PROTECTION   | 4.00 - 5.25V   | Works at 115 - 140% of rating   |             |             |             |             |         |        |
|                                    | OPERATING INDICATION   | LED (Green)  |                                 |             |             |             |             |         |        |
|                                    | REMOTE SENSING   | Not provided   |                                 |             |             |             |             |         |        |
|                                    | REMOTE ON/OFF  | Not provided   |                                 |             |             |             |             |         |        |
| ISOLATION                          | INPUT-OUTPUT   | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)           |                                 |             |             |             |             |         |        |
|                                    | INPUT-FG, COVER  | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50MΩ min (At Room Temperature)           |                                 |             |             |             |             |         |        |
|                                    | OUTPUT-FG, COVER   | AC500V 1minute, Cutoff current = 100mA max, DC500V 50MΩ min (At Room Temperature)            |                                 |             |             |             |             |         |        |
| ENVIRONMENT                        | OPERATING TEMP.,HUMID.AND ALTITUDE   | -10 to +60°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  | 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   | 33 × 85 × 119mm (W × H × D) / 300g max (without cover)                                       |                                 |             |             |             |             |         |        |
|                                    | COOLING METHOD   | Convection   |                                 |             |             |             |             |         |        |

\*1 Drift is the change 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.  
 \*2 Please contact us about safety approvals for the model with option.  
 \* Avoid prolonged use under over-load.  
 \* Parallel operation is not possible.  
 \* Derating is required when operated with case cover.

## External view

R



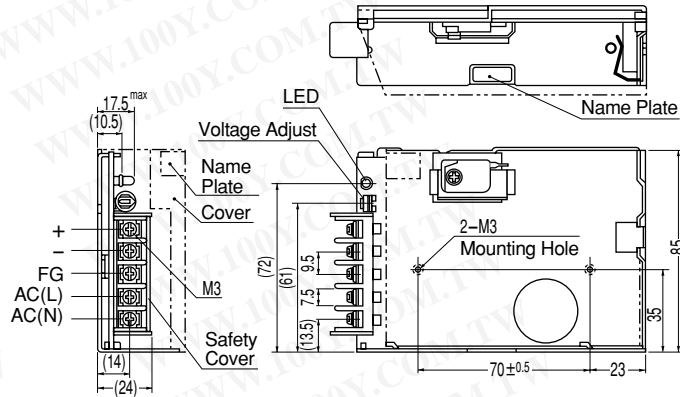
| I/O Connector | Mating Housing |
|---------------|----------------|
| CN1           | B3P5-VH        |
| CN2           | B4P-VH         |

(Mfr : J.S.T.)

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

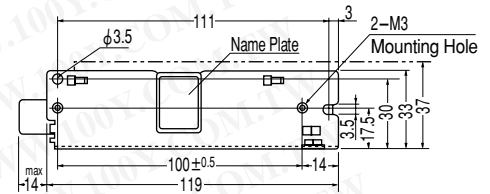
(Mfr : J.S.T.)

Connector type



- ※Weight : 300g or less (without cover)
- ※Cover is optional
- ※Tolerance :  $\pm 1$
- ※Dimensions in mm.

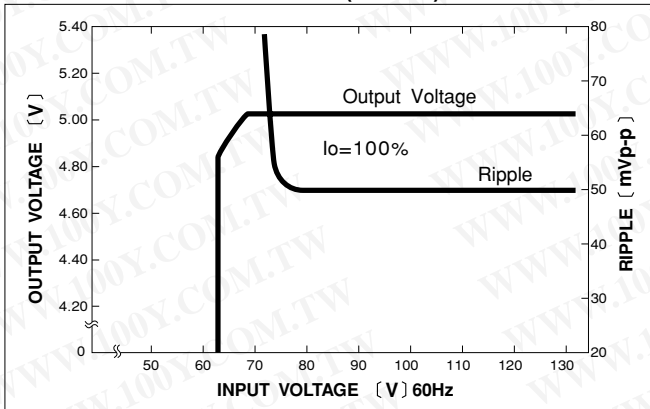
Barrier strip type



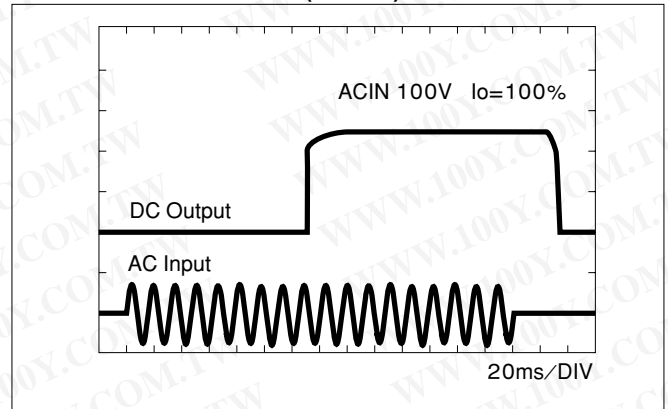
Mounting torque: 0.49N·m (5.0kgf·cm) max

## Performance data

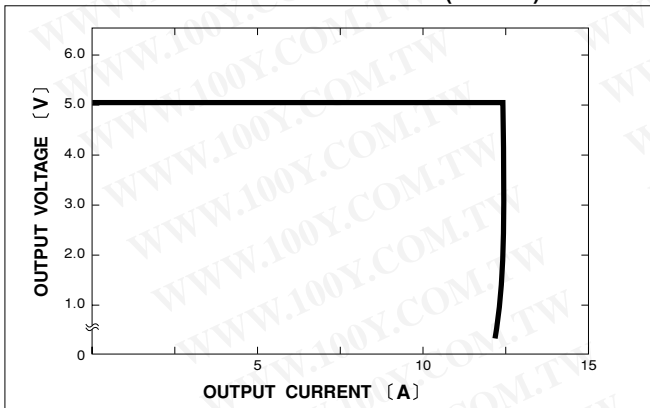
### ■ STATIC CHARACTERISTICS (R50A-5)



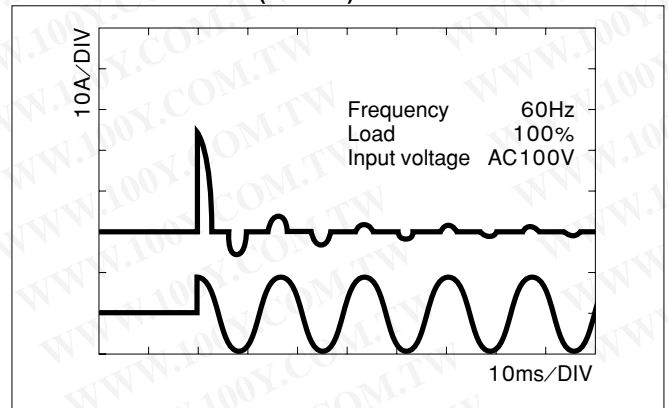
### ■ RISE TIME & FALL TIME (R50A-5)



### ■ OVERCURRENT CHARACTERISTICS (R50A-5)



### ■ INRUSH CURRENT (R50A-5)

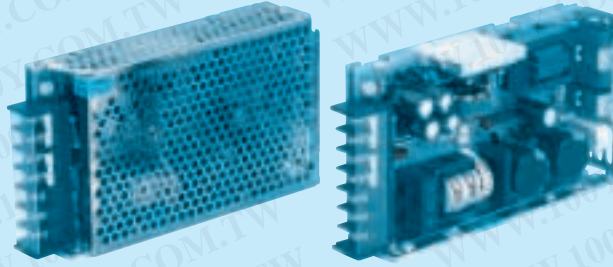




# R100U

R 100 U -5 -□

① ② ③ ④ ⑤



- ① Series name
- ② Output wattage
- ③ UL recognized, TÜV approved, CSA certified
- ④ Output voltage
- ⑤ Optional \*2  
C : with Coating  
G : Low leakage current  
N : with Cover

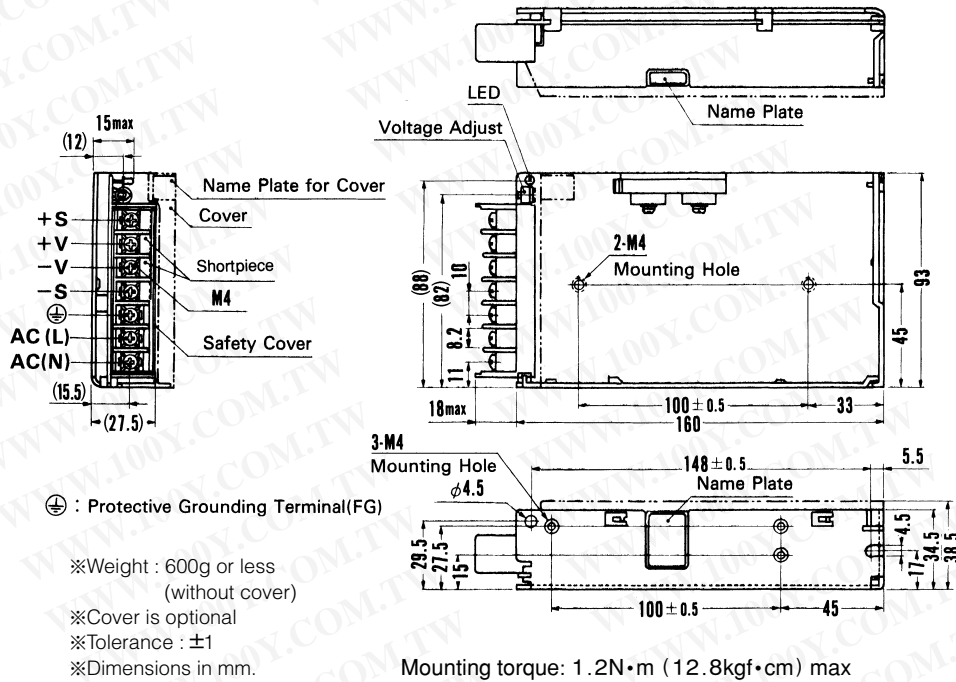
| MODEL                 | R100U-3 | R100U-5 | R100U-9  | R100U-12 | R100U-15 | R100U-18 | R100U-24 |
|-----------------------|---------|---------|----------|----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 60      | 100     | 103.5    | 102      | 105      | 100.8    | 108      |
| DC OUTPUT             | 3V 20A  | 5V 20A  | 9V 11.5A | 12V 8.5A | 15V 7A   | 18V 5.6A | 24V 4.5A |

## SPECIFICATIONS

|                                    | MODEL  | R100U-3   | R100U-5                       | R100U-9     | R100U-12    | R100U-15    | R100U-18    | R100U-24 |        |
|------------------------------------|--|---|-------------------------------|-------------|-------------|-------------|-------------|----------|--------|
| INPUT                              | VOLTAGE[V]   | AC85 - 132 1 $\phi$ or DC110 - 170  |                               |             |             |             |             |          |        |
|                                    | CURRENT[A]   | ACIN 100V   | 2.8typ (Io=100%)              |             |             |             |             |          |        |
|                                    | FREQUENCY[Hz]  | 47 - 440 or DC  |                               |             |             |             |             |          |        |
|                                    | EFFICIENCY[%]  |   | 75typ                         | 79typ       | 80typ       | 82typ       | 83typ       | 84typ    | 85typ  |
|                                    | INRUSH CURRENT[A]  | ACIN 100V   | 15typ (Io=100%)               |             |             |             |             |          |        |
|                                    | LEAKAGE CURRENT[ma]  | 0.5max (60Hz, According to UL, CSA and DEN-AN)  |                               |             |             |             |             |          |        |
| OUTPUT                             | VOLTAGE[V]   | 3   | 5                             | 9           | 12          | 15          | 18          | 24       |        |
|                                    | CURRENT[A]   | 20  | 20                            | 11.5        | 8.5         | 7           | 5.6         | 4.5      |        |
|                                    | LINE REGULATION[mV]  | 20max   | 20max                         | 36max       | 48max       | 60max       | 72max       | 96max    |        |
|                                    | LOAD REGULATION[mV]  | 40max   | 40max                         | 100max      | 100max      | 120max      | 120max      | 150max   |        |
|                                    | RIPPLE[mVp-p]  | 0 to +50 $^{\circ}$ C   | 80max                         | 80max       | 120max      | 120max      | 120max      | 120max   | 120max |
|                                    |  | -10 - 0 $^{\circ}$ C  | 140max                        | 140max      | 160max      | 160max      | 160max      | 160max   | 160max |
|                                    | RIPPLE NOISE[mVp-p]  | 0 to +50 $^{\circ}$ C   | 120max                        | 120max      | 150max      | 150max      | 150max      | 150max   | 150max |
|                                    |  | -10 - 0 $^{\circ}$ C  | 160max                        | 160max      | 180max      | 180max      | 180max      | 180max   | 180max |
|                                    | TEMPERATURE REGULATION[mV]   | 0 to +50 $^{\circ}$ C   | 50max                         | 50max       | 90max       | 120max      | 150max      | 180max   | 240max |
|                                    |  | -10 to +50 $^{\circ}$ C   | 60max                         | 60max       | 120max      | 150max      | 180max      | 200max   | 290max |
| DRIFT[mV]                          | *1   | 20max   | 20max                         | 36max       | 48max       | 60max       | 72max       | 96max    |        |
| START-UP TIME[ms]                  | 200max (ACIN 85V, Io=100%)   |   |                               |             |             |             |             |          |        |
| HOLD-UP TIME[ms]                   | 20typ (ACIN 100V, Io=100%, 0 to +50 $^{\circ}$ C) 10typ (ACIN 85V, Io=100%, 0 to +50 $^{\circ}$ C) |   |                               |             |             |             |             |          |        |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 2.85 - 3.6   | 4.5 - 5.5   | 8.1 - 9.9                     | 10.8 - 13.2 | 13.5 - 16.5 | 16.2 - 19.8 | 21.6 - 26.4 |          |        |
| PROTECTION CIRCUIT AND OTHERS      | OVERCURRENT PROTECTION   | Works over 105% of rating and recovers automatically  |                               |             |             |             |             |          |        |
|                                    | OVERVOLTAGE PROTECTION   | 4.00 - 5.25V  | Works at 115 - 140% of rating |             |             |             |             |          |        |
|                                    | OPERATING INDICATION   | LED (Green)   |                               |             |             |             |             |          |        |
|                                    | REMOTE SENSING   | Provided  |                               |             |             |             |             |          |        |
|                                    | REMOTE ON/OFF  | Not provided  |                               |             |             |             |             |          |        |
| ISOLATION                          | INPUT-OUTPUT   | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50M $\Omega$ min (At Room Temperature)              |                               |             |             |             |             |          |        |
|                                    | INPUT-FG, COVER  | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50M $\Omega$ min (At Room Temperature)              |                               |             |             |             |             |          |        |
|                                    | OUTPUT-FG, COVER   | AC500V 1minute, Cutoff current = 100mA max, DC500V 50M $\Omega$ 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 $^2$ (2G), 3minutes period, 60minutes each along X, Y and Z axis                     |                               |             |             |             |             |          |        |
|                                    | IMPACT   | 196.1m/s $^2$ (20G), 11ms, once each X, Y and Z axis  |                               |             |             |             |             |          |        |
| SAFETY AND NOISE REGULATIONS       | AGENCY APPROVALS   | UL60950-1, CSA C22.2 No.60950-1, EN60950-1 Complies with DEN-AN and IEC60950-1                          |                               |             |             |             |             |          |        |
|                                    | CONDUCTED NOISE  | Complies with FCC-B, VCCI-B   |                               |             |             |             |             |          |        |
| OTHERS                             | CASE SIZE/WEIGHT   | 34.5 x 93 x 160mm (W x H x D) / 600gmax (without cover)   |                               |             |             |             |             |          |        |
|                                    | COOLING METHOD   | Convection  |                               |             |             |             |             |          |        |

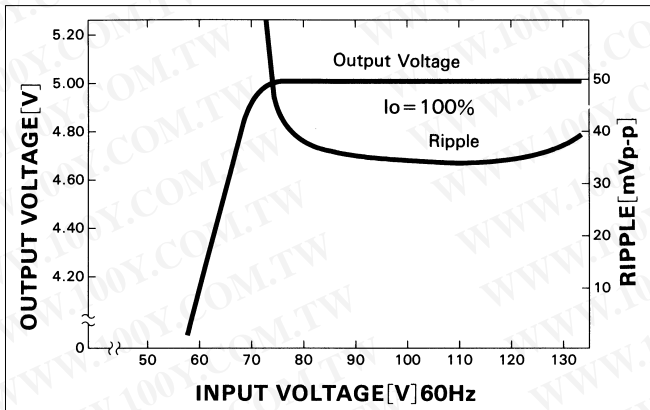
\*1 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 $^{\circ}$ C, with the input voltage held constant at the rated input/output.  
 \*2 Please contact us about safety approvals for the model with option.  
 \* Avoid prolonged use under over-load.  
 \* Parallel operation with other model is not possible.  
 \* Derating is required when operated with case cover.

## External view

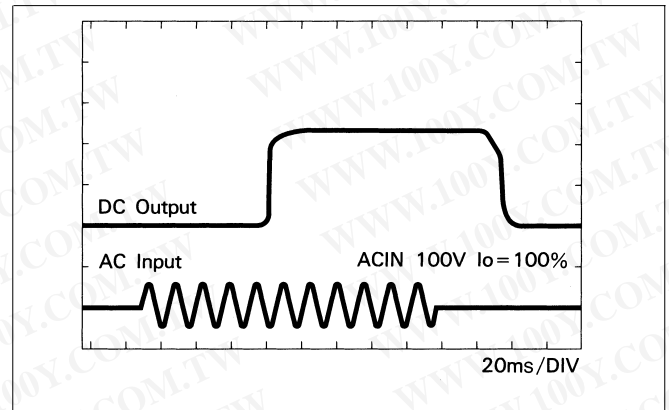


## Performance data

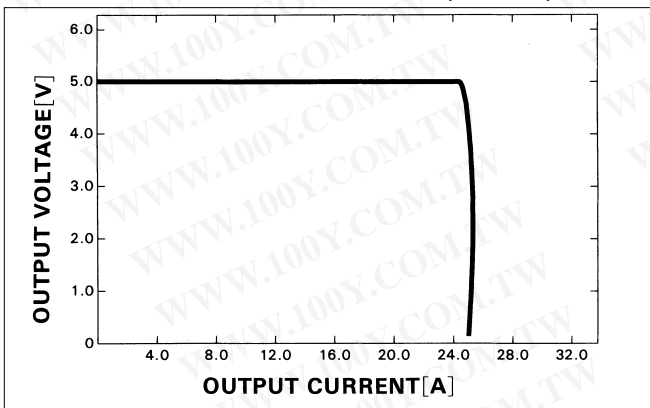
### ■ STATIC CHARACTERISTICS (R100U-5)



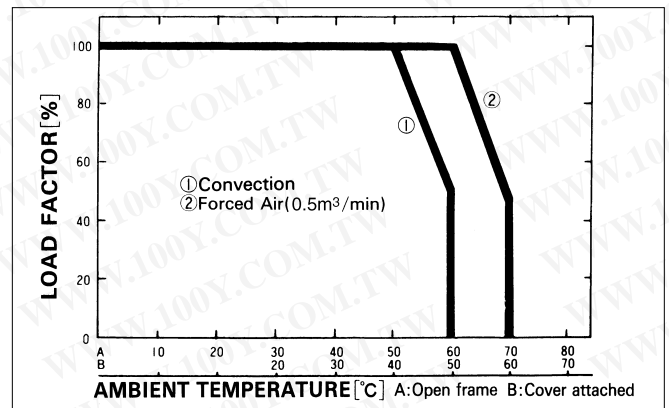
### ■ RISE TIME & FALL TIME (R100U-5)



### ■ OVERCURRENT CHARACTERISTICS (R100U-5)



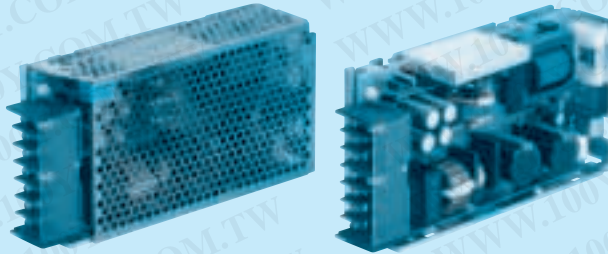
### ■ DERATING CURVE



# R150U

R 150 U -5 -□

① ② ③ ④ ⑤



- ① Series name
- ② Output wattage
- ③ UL recognized, TÜV approved, CSA certified
- ④ Output voltage
- ⑤ Optional \*2  
C : with Coating  
G : Low leakage current  
N : with Cover

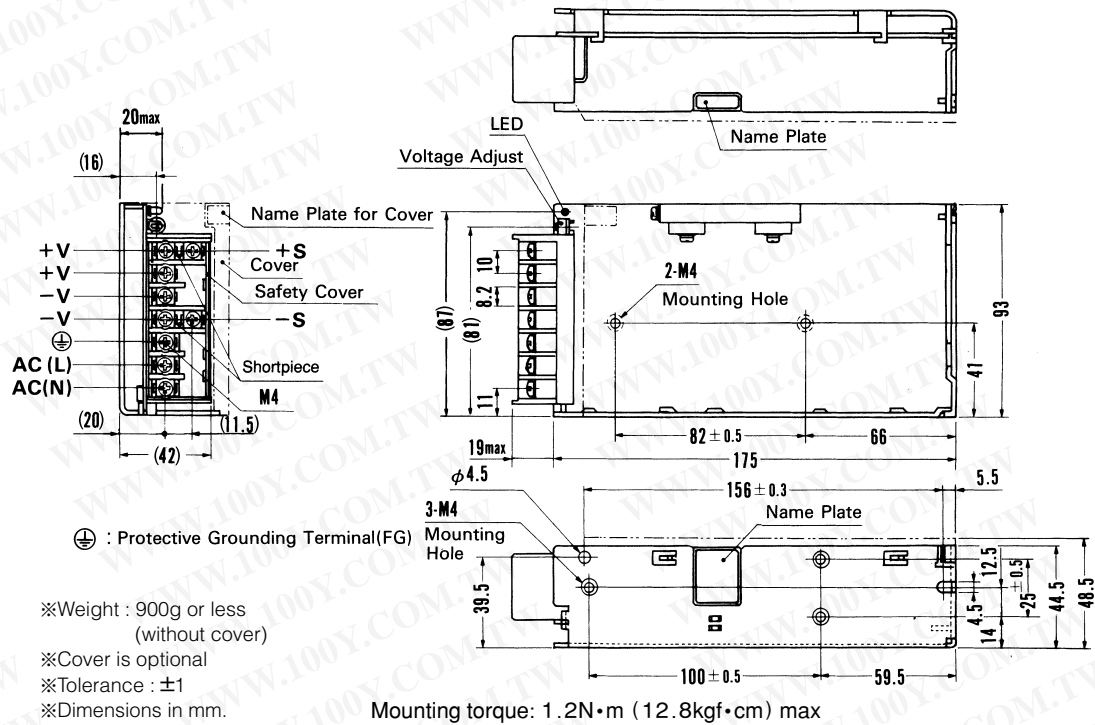
| MODEL                 | R150U-3 | R150U-5 | R150U-9 | R150U-12 | R150U-15 | R150U-18 | R150U-24 |
|-----------------------|---------|---------|---------|----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 90      | 150     | 153     | 156      | 150      | 153      | 156      |
| DC OUTPUT             | 3V 30A  | 5V 30A  | 9V 17A  | 12V 13A  | 15V 10A  | 18V 8.5A | 24V 6.5A |

## SPECIFICATIONS

|                                    | MODEL  | R150U-3   | R150U-5                       | R150U-9     | R150U-12    | R150U-15    | R150U-18    | R150U-24 |        |
|------------------------------------|--|---|-------------------------------|-------------|-------------|-------------|-------------|----------|--------|
| INPUT                              | VOLTAGE[V]   | AC85 - 132 1 $\phi$ or DC110 - 170  |                               |             |             |             |             |          |        |
|                                    | CURRENT[A]   | ACIN 100V   | 4.2typ (Io=100%)              |             |             |             |             |          |        |
|                                    | FREQUENCY[Hz]  | 47 - 440 or DC  |                               |             |             |             |             |          |        |
|                                    | EFFICIENCY[%]  |   | 74typ                         | 78typ       | 79typ       | 80typ       | 82typ       | 83typ    | 84typ  |
|                                    | INRUSH CURRENT[A]  | ACIN 100V   | 15typ (Io=100%)               |             |             |             |             |          |        |
|                                    | LEAKAGE CURRENT[ma]  | 0.5max (60Hz, According to UL, CSA and DEN-AN)  |                               |             |             |             |             |          |        |
| OUTPUT                             | VOLTAGE[V]   | 3   | 5                             | 9           | 12          | 15          | 18          | 24       |        |
|                                    | CURRENT[A]   | 30  | 30                            | 17          | 13          | 10          | 8.5         | 6.5      |        |
|                                    | LINE REGULATION[mV]  | 20max   | 20max                         | 36max       | 48max       | 60max       | 72max       | 96max    |        |
|                                    | LOAD REGULATION[mV]  | 40max   | 40max                         | 100max      | 100max      | 120max      | 120max      | 150max   |        |
|                                    | RIPPLE[mVp-p]  | 0 to +50 $^{\circ}$ C   | 80max                         | 80max       | 120max      | 120max      | 120max      | 120max   | 120max |
|                                    |  | -10 - 0 $^{\circ}$ C  | 140max                        | 140max      | 160max      | 160max      | 160max      | 160max   | 160max |
|                                    | RIPPLE NOISE[mVp-p]  | 0 to +50 $^{\circ}$ C   | 120max                        | 120max      | 150max      | 150max      | 150max      | 150max   | 150max |
|                                    |  | -10 - 0 $^{\circ}$ C  | 160max                        | 160max      | 180max      | 180max      | 180max      | 180max   | 180max |
|                                    | TEMPERATURE REGULATION[mV]   | 0 to +50 $^{\circ}$ C   | 50max                         | 50max       | 90max       | 120max      | 150max      | 180max   | 240max |
|                                    |  | -10 to +50 $^{\circ}$ C   | 60max                         | 60max       | 120max      | 150max      | 180max      | 200max   | 290max |
| DRIFT[mV]                          | *1   | 20max   | 20max                         | 36max       | 48max       | 60max       | 72max       | 96max    |        |
| START-UP TIME[ms]                  | 200max (ACIN 85V, Io=100%)   |   |                               |             |             |             |             |          |        |
| HOLD-UP TIME[ms]                   | 20typ (ACIN 100V, Io=100%, 0 to +50 $^{\circ}$ C) 10typ (ACIN 85V, Io=100%, 0 to +50 $^{\circ}$ C) |   |                               |             |             |             |             |          |        |
| OUTPUT VOLTAGE ADJUSTMENT RANGE[V] | 2.85 - 3.6   | 4.5 - 5.5   | 8.1 - 9.9                     | 10.8 - 13.2 | 13.5 - 16.5 | 16.2 - 19.8 | 21.6 - 26.4 |          |        |
| PROTECTION CIRCUIT AND OTHERS      | OVERCURRENT PROTECTION   | Works over 105% of rating and recovers automatically  |                               |             |             |             |             |          |        |
|                                    | OVERVOLTAGE PROTECTION   | 4.00 - 5.25V  | Works at 115 - 140% of rating |             |             |             |             |          |        |
|                                    | OPERATING INDICATION   | LED (Green)   |                               |             |             |             |             |          |        |
|                                    | REMOTE SENSING   | Provided  |                               |             |             |             |             |          |        |
|                                    | REMOTE ON/OFF  | Not provided  |                               |             |             |             |             |          |        |
| ISOLATION                          | INPUT-OUTPUT   | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50M $\Omega$ min (At Room Temperature)              |                               |             |             |             |             |          |        |
|                                    | INPUT-FG, COVER  | AC2,000V 1minute, Cutoff current = 10mA max, DC500V 50M $\Omega$ min (At Room Temperature)              |                               |             |             |             |             |          |        |
|                                    | OUTPUT-FG, COVER   | AC500V 1minute, Cutoff current = 100mA max, DC500V 50M $\Omega$ 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 $^2$ (2G), 3minutes period, 60minutes each along X, Y and Z axis                     |                               |             |             |             |             |          |        |
|                                    | IMPACT   | 196.1m/s $^2$ (20G), 11ms, once each X, Y and Z axis  |                               |             |             |             |             |          |        |
| SAFETY AND NOISE REGULATIONS       | AGENCY APPROVALS   | UL60950-1, CSA C22.2 No.60950-1, EN60950-1 Complies with DEN-AN and IEC60950-1                          |                               |             |             |             |             |          |        |
|                                    | CONDUCTED NOISE  | Complies with FCC-B, VCCI-B   |                               |             |             |             |             |          |        |
| OTHERS                             | CASE SIZE/WEIGHT   | 44.5 x 93 x 175mm (W x H x D) / 900g max (without cover)  |                               |             |             |             |             |          |        |
|                                    | COOLING METHOD   | Convection  |                               |             |             |             |             |          |        |

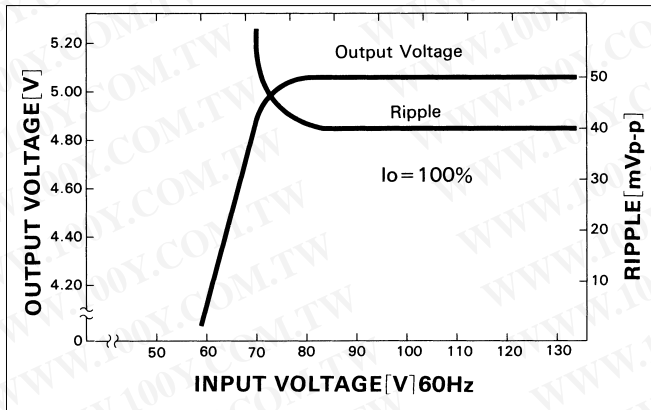
\*1 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25 $^{\circ}$ C, with the input voltage held constant at the rated input/output.  
 \*2 Please contact us about safety approvals for the model with option.  
 \* Avoid prolonged use under over-load.  
 \* Parallel operation with other model is not possible.  
 \* Derating is required when operated with case cover.

External view

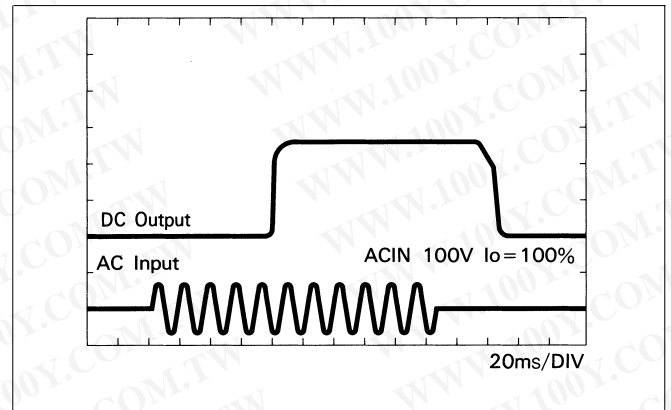


Performance data

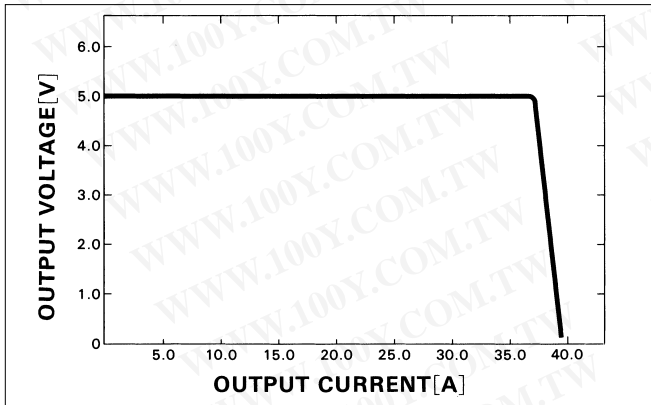
■ STATIC CHARACTERISTICS (R150U-5)



■ RISE TIME & FALL TIME (R150U-5)



■ OVERCURRENT CHARACTERISTICS (R150U-5)



■ DERATING CURVE

