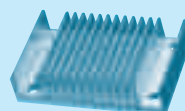


# DHS50A

**DH S 50 A 05 -□**

① ② ③ ④ ⑤ ⑧


**RoHS**

**\*Providing heat sink as option**


- ① Series name
- ② Single output
- ③ Output wattage
- ④ A : DC60-160V
- ⑤ Output voltage
- ⑧ Optional
- T : with Mounting hole (φ 3.4 thru)

| MODEL                 | DHS50A05 | DHS50A12 | DHS50A15 | DHS50A24 |
|-----------------------|----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 50.0     | 50.4     | 51.0     | 50.4     |
| DC OUTPUT             | 5V 10A   | 12V 4.2A | 15V 3.4A | 24V 2.1A |

## SPECIFICATIONS

|                               | MODEL                                | DHS50A05                                                                                                                  | DHS50A12      | DHS50A15      | DHS50A24      |
|-------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                           | DC60 - 160                                                                                                                |               |               |               |
|                               | CURRENT[A]                           | 0.55A                                                                                                                     | 0.55A         | 0.55A         | 0.55A         |
|                               | EFFICIENCY[%]                        | 84.0typ                                                                                                                   | 86.0typ       | 86.0typ       | 86.0typ       |
|                               |                                      |                                                                                                                           |               |               |               |
| OUTPUT                        | VOLTAGE[V]                           | 5                                                                                                                         | 12            | 15            | 24            |
|                               | CURRENT[A]                           | 10                                                                                                                        | 4.2           | 3.4           | 2.1           |
|                               | LINE REGULATION[mV]                  | 10max                                                                                                                     | 24max         | 30max         | 48max         |
|                               | LOAD REGULATION[mV]                  | 10max                                                                                                                     | 24max         | 30max         | 48max         |
|                               | RIPPLE[mVp-p]                        | 0 to +100℃ *2                                                                                                             | 80max         | 120max        | 120max        |
|                               |                                      | -40 to 0℃ *2                                                                                                              | 120max        | 150max        | 150max        |
|                               |                                      | 0 to 15% Load *2                                                                                                          | 160max        | 240max        | 240max        |
|                               | RIPPLE NOISE[mVp-p]                  | 0 to +100℃ *2                                                                                                             | 120max        | 150max        | 150max        |
|                               |                                      | -40 to 0℃ *2                                                                                                              | 200max        | 200max        | 250max        |
|                               |                                      | 0 to 15% Load *2                                                                                                          | 240max        | 300max        | 300max        |
|                               | TEMPERATURE REGULATION[mV]           | 0 to +65℃                                                                                                                 | 50max         | 120max        | 150max        |
|                               |                                      | -40 to +100℃                                                                                                              | 100max        | 240max        | 480max        |
|                               | DRIFT[mV]                            | 20max                                                                                                                     | 40max         | 60max         | 90max         |
|                               | START-UP TIME[ms]                    | 200max (DCIN 110V, Io=100%)                                                                                               |               |               |               |
| PROTECTION CIRCUIT AND OTHERS | OUTPUT VOLTAGE ADJUSTMENT RANGE[V]   | Fixed (TRM pin open), adjustable by external VR or external voltage                                                       |               |               |               |
|                               |                                      | 4.50 - 6.00                                                                                                               | 10.80 - 13.20 | 13.50 - 16.50 | 21.60 - 26.40 |
|                               | OUTPUT VOLTAGE SETTING[V]            | 4.97 - 5.13                                                                                                               | 11.91 - 12.29 | 14.76 - 15.24 | 23.62 - 24.38 |
|                               | OVERCURRENT PROTECTION               | Works over 105% of rating and recovers automatically                                                                      |               |               |               |
|                               | OVERVOLTAGE PROTECTION[V]            | 6.30 - 7.60                                                                                                               | 13.90 - 17.55 | 17.25 - 21.75 | 27.60 - 34.80 |
| ISOLATION                     | REMOTE SENSING                       | nothing                                                                                                                   |               |               |               |
|                               | REMOTE ON/OFF                        | Provided (Negative Logic L : ON, H : OFF)                                                                                 |               |               |               |
| ISOLATION                     | INPUT-OUTPUT                         | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                                                         |               |               |               |
|                               | INPUT-FG                             | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                                                         |               |               |               |
|                               | OUTPUT-FG                            | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15℃)                                                          |               |               |               |
| ENVIRONMENT                   | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +100℃ (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 feet) max    |               |               |               |
|                               | STORAGE TEMP., HUMID. AND ALTITUDE   | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max                                                       |               |               |               |
|                               | VIBRATION                            | 10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis Complies with IEC61373 Category 1 Class B |               |               |               |
|                               | IMPACT                               | 196.1m/s² (20G), 11ms, once each along X, Y and Z axis Complies with IEC61373 Category 1 Class B                          |               |               |               |
| SAFETY                        | AGENCY APPROVALS                     | UL60950-1, C-UL (CSA60950-1), EN60950-1                                                                                   |               |               |               |
| OTHERS                        | CASE SIZE/WEIGHT                     | 58.4×12.7×37.3mm [2.3×0.5×1.47 inches] (W×H×D) / 60g max                                                                  |               |               |               |
|                               | COOLING METHOD                       | Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)                           |               |               |               |

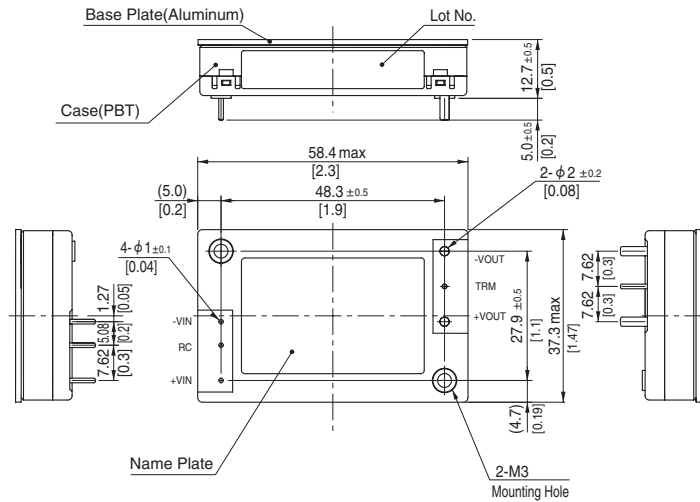
\*1 At rated input(DC110V) and rated load.

\*2 Ripple and ripple noise is measured by using measuring board. Refer to the manual

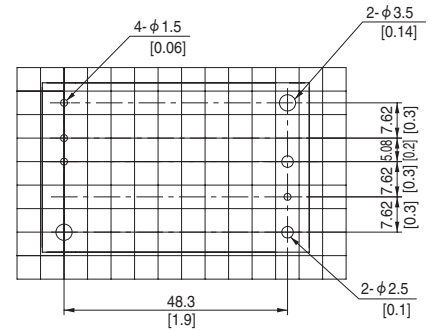
\*3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.

\*4 Refer to the manual for input range.

## External view



Recommending size for processing PCB  
(TOP VIEW)



※ Dimensions in mm, [ ]=inches

※ Div. : 0.2inch

※ Tolerance : ±0.3 [±0.012]

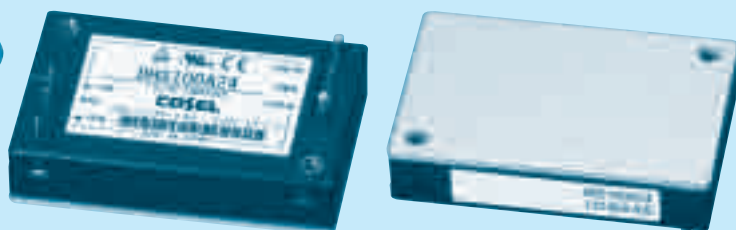
※ Weight : 60g max

※ Dimensions in mm, [ ]=inches

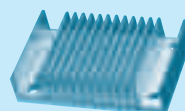
※ Mounting hole screwing torque : 0.49N · m (5.0kgf · cm) max



RoHS



\*Providing heat sink as option



- ① Series name
- ② Single output
- ③ Output wattage
- ④ A : DC60-160V
- ⑤ Output voltage
- ⑥ Optional
- T : with Mounting hole (φ 3.4 thru)

| MODEL                 | DHS100A05 | DHS100A12 | DHS100A15 | DHS100A24 |
|-----------------------|-----------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 100.0     | 100.8     | 100.5     | 100.8     |
| DC OUTPUT             | 5V 20A    | 12V 8.4A  | 15V 6.7A  | 24V 4.2A  |

## SPECIFICATIONS

|                               | MODEL                                | DHS100A05                                                                                                                 | DHS100A12     | DHS100A15     | DHS100A24     |
|-------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|
| INPUT                         | VOLTAGE[V]                           | DC60 - 160                                                                                                                |               |               |               |
|                               | CURRENT[A]                           | 1.1A                                                                                                                      | 1.1A          | 1.1A          | 1.1A          |
|                               | EFFICIENCY[%]                        | 85.0typ                                                                                                                   | 88.0typ       | 88.0typ       | 88.0typ       |
|                               |                                      |                                                                                                                           |               |               |               |
| OUTPUT                        | VOLTAGE[V]                           | 5                                                                                                                         | 12            | 15            | 24            |
|                               | CURRENT[A]                           | 20                                                                                                                        | 8.4           | 6.7           | 4.2           |
|                               | LINE REGULATION[mV]                  | 10max                                                                                                                     | 24max         | 30max         | 48max         |
|                               | LOAD REGULATION[mV]                  | 10max                                                                                                                     | 24max         | 30max         | 48max         |
|                               | RIPPLE[mVp-p]                        | 0 to +100℃ *2                                                                                                             | 80max         | 120max        | 120max        |
|                               |                                      | -40 to 0℃ *2                                                                                                              | 120max        | 150max        | 150max        |
|                               |                                      | 0 to 15% Load *2                                                                                                          | 160max        | 240max        | 240max        |
|                               | RIPPLE NOISE[mVp-p]                  | 0 to +100℃ *2                                                                                                             | 120max        | 150max        | 150max        |
|                               |                                      | -40 to 0℃ *2                                                                                                              | 200max        | 200max        | 250max        |
|                               |                                      | 0 to 15% Load *2                                                                                                          | 240max        | 300max        | 300max        |
|                               | TEMPERATURE REGULATION[mV]           | 0 to +65℃                                                                                                                 | 50max         | 120max        | 150max        |
|                               |                                      | -40 to +100℃                                                                                                              | 100max        | 240max        | 480max        |
|                               | DRIFT[mV]                            | 20max                                                                                                                     | 40max         | 60max         | 90max         |
|                               | START-UP TIME[ms]                    | 200max (DCIN 110V, Io=100%)                                                                                               |               |               |               |
| PROTECTION CIRCUIT AND OTHERS | OUTPUT VOLTAGE ADJUSTMENT RANGE[V]   | Fixed (TRM pin open), adjustable by external VR or external voltage                                                       |               |               |               |
|                               |                                      | 4.50 - 6.00                                                                                                               | 10.80 - 13.20 | 13.50 - 16.50 | 21.60 - 26.40 |
|                               | OUTPUT VOLTAGE SETTING[V]            | 4.97 - 5.13                                                                                                               | 11.91 - 12.29 | 14.76 - 15.24 | 23.62 - 24.38 |
|                               |                                      |                                                                                                                           |               |               |               |
| ISOLATION                     | OVERCURRENT PROTECTION               | Works over 105% of rating and recovers automatically                                                                      |               |               |               |
|                               | OVERVOLTAGE PROTECTION[V]            | 6.30 - 7.60                                                                                                               | 13.90 - 17.55 | 17.25 - 21.75 | 27.60 - 34.80 |
|                               | REMOTE SENSING                       | nothing                                                                                                                   |               |               |               |
|                               | REMOTE ON/OFF                        | Provided (Negative Logic L : ON, H : OFF)                                                                                 |               |               |               |
| ENVIRONMENT                   | INPUT-OUTPUT                         | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                                                         |               |               |               |
|                               | INPUT-FG                             | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                                                         |               |               |               |
|                               | OUTPUT-FG                            | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15℃)                                                          |               |               |               |
| SAFETY                        | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +100℃ (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 feet) max    |               |               |               |
|                               | STORAGE TEMP., HUMID. AND ALTITUDE   | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max                                                       |               |               |               |
|                               | VIBRATION                            | 10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis Complies with IEC61373 Category 1 Class B |               |               |               |
|                               | IMPACT                               | 196.1m/s² (20G), 11ms, once each along X, Y and Z axis Complies with IEC61373 Category 1 Class B                          |               |               |               |
| OTHERS                        | AGENCY APPROVALS                     | UL60950-1, C-UL (CSA60950-1), EN60950-1                                                                                   |               |               |               |
| OTHERS                        | CASE SIZE/WEIGHT                     | 58.4×12.7×37.3mm [2.3×0.5×1.47 inches] (W×H×D) / 60g max                                                                  |               |               |               |
|                               | COOLING METHOD                       | Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)                           |               |               |               |

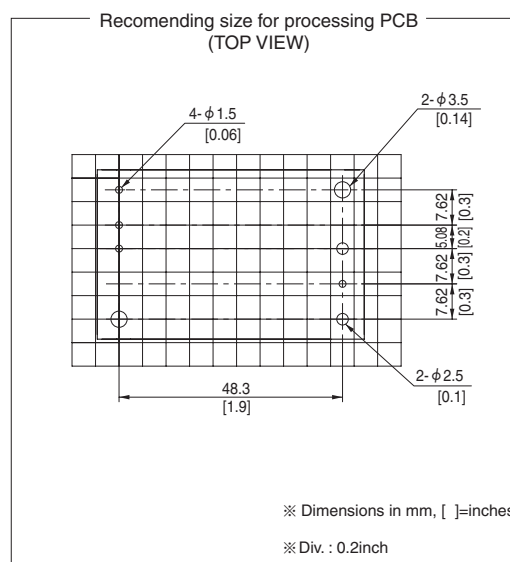
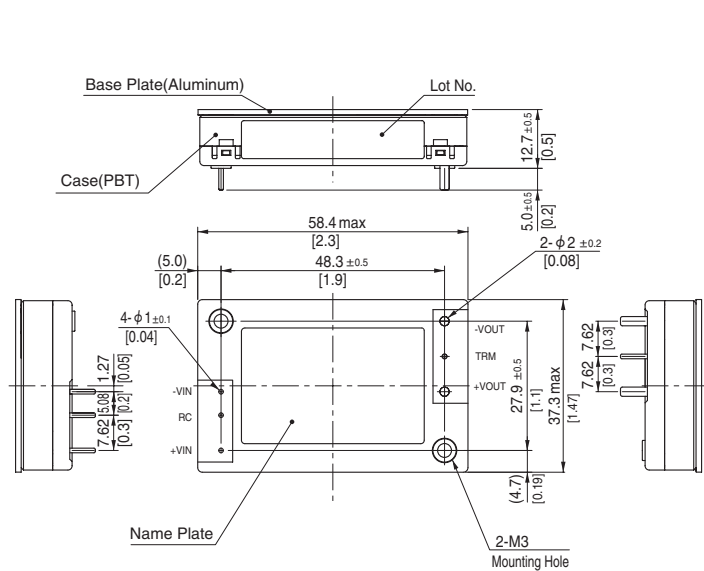
\*1 At rated input(DC110V) and rated load.

\*2 Ripple and ripple noise is measured by using measuring board. Refer to the manual.

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

\*4 Refer to the manual for input range.

## External view



※ Dimensions in mm, [ ]=inches

※ Div. : 0.2inch

※ Tolerance : ±0.3 [±0.012]

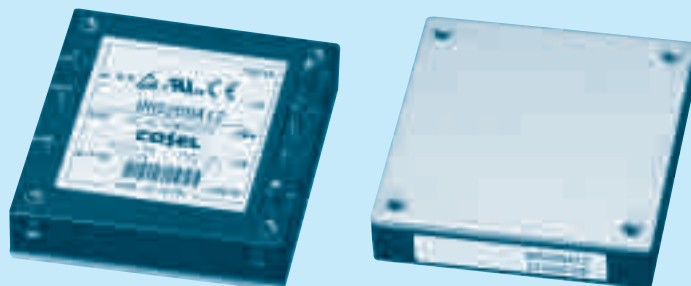
※ Weight : 60g max

※ Dimensions in mm, [ ]=inches

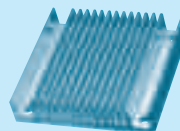
※ Mounting hole screwing torque : 0.49N · m (5.0kgf · cm) max



RoHS



\*Providing heat sink  
as option



- ① Series name
- ② Single output
- ③ Output wattage
- ④ A : DC60-160V
- ⑤ Output voltage
- ⑥ Optional
- T : with Mounting hole (φ 3.4 thru)

| MODEL                 | DHS200A05 | DHS200A12 | DHS200A15 | DHS200A24 |
|-----------------------|-----------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 200.0     | 200.4     | 201.0     | 201.6     |
| DC OUTPUT             | 5V 40A    | 12V 16.7A | 15V 13.4A | 24V 8.4A  |

## SPECIFICATIONS

|                                     | MODEL                                | DHS200A05                                                                                                                             | DHS200A12     | DHS200A15     | DHS200A24     |
|-------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|
| INPUT                               | VOLTAGE[V]                           | DC60 - 160                                                                                                                            |               |               |               |
|                                     | CURRENT[A]                           | 2.1A                                                                                                                                  | 2.1A          | 2.1A          | 2.1A          |
|                                     | EFFICIENCY[%]                        | 87.0typ                                                                                                                               | 88.0typ       | 88.0typ       | 88.0typ       |
| OUTPUT                              | VOLTAGE[V]                           | 5                                                                                                                                     | 12            | 15            | 24            |
|                                     | CURRENT[A]                           | 40                                                                                                                                    | 16.7          | 13.4          | 8.4           |
|                                     | LINE REGULATION[mV]                  | 10max                                                                                                                                 | 24max         | 30max         | 48max         |
|                                     | LOAD REGULATION[mV]                  | 10max                                                                                                                                 | 24max         | 30max         | 48max         |
|                                     | RIPPLE[mVp-p]                        | 0 to +100℃ *2                                                                                                                         | 80max         | 120max        | 120max        |
|                                     |                                      | -40 to 0℃ *2                                                                                                                          | 120max        | 150max        | 150max        |
|                                     |                                      | 0 to 15% Load *2                                                                                                                      | 160max        | 240max        | 240max        |
|                                     | RIPPLE NOISE[mVp-p]                  | 0 to +100℃ *2                                                                                                                         | 120max        | 150max        | 150max        |
|                                     |                                      | -40 to 0℃ *2                                                                                                                          | 200max        | 200max        | 250max        |
|                                     |                                      | 0 to 15% Load *2                                                                                                                      | 240max        | 300max        | 300max        |
|                                     | TEMPERATURE REGULATION[mV]           | 0 to +65℃                                                                                                                             | 50max         | 120max        | 150max        |
|                                     |                                      | -40 to +100℃                                                                                                                          | 100max        | 240max        | 480max        |
|                                     | DRIFT[mV]                            | 20max                                                                                                                                 | 40max         | 60max         | 90max         |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | START-UP TIME[ms]                    | 200max (DCIN 110V, Io=100%)                                                                                                           |               |               |               |
|                                     | OUTPUT VOLTAGE ADJUSTMENT RANGE[V]   | Fixed (TRM pin open), adjustable by external VR or external voltage                                                                   |               |               |               |
|                                     |                                      | 3.00 - 6.00                                                                                                                           | 7.20 - 13.20  | 9.00 - 16.50  | 14.40 - 26.40 |
|                                     | OUTPUT VOLTAGE SETTING[V]            | 4.97 - 5.13                                                                                                                           | 11.91 - 12.29 | 14.76 - 15.24 | 23.62 - 24.38 |
|                                     | OVERCURRENT PROTECTION               | Works over 105% of rating and recovers automatically                                                                                  |               |               |               |
| ISOLATION                           | OVERVOLTAGE PROTECTION[V]            | 6.30 - 7.30                                                                                                                           | 13.90 - 16.35 | 17.25 - 20.25 | 27.60 - 32.40 |
|                                     | REMOTE SENSING                       | Provided                                                                                                                              |               |               |               |
|                                     | REMOTE ON/OFF                        | Provided (Negative Logic L : ON, H : OFF)                                                                                             |               |               |               |
| ENVIRONMENT                         | INPUT-OUTPUT                         | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                                                                     |               |               |               |
|                                     | INPUT-FG                             | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                                                                     |               |               |               |
|                                     | OUTPUT-FG                            | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15℃)                                                                      |               |               |               |
| SAFETY                              | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +100℃ (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 feet) max                |               |               |               |
|                                     | STORAGE TEMP., HUMID. AND ALTITUDE   | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max                                                                   |               |               |               |
|                                     | VIBRATION                            | 10 - 55Hz, 49.0m/s <sup>2</sup> (5G), 3minutes period, 60minutes each along X, Y and Z axis Complies with IEC61373 Category 1 Class B |               |               |               |
| OTHERS                              | IMPACT                               | 196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis Complies with IEC61373 Category 1 Class B                          |               |               |               |
|                                     | AGENCY APPROVALS                     | UL60950-1, C-UL (CSA60950-1), EN60950-1                                                                                               |               |               |               |
|                                     | CASE SIZE/WEIGHT                     | 58.4×12.7×61mm [2.3×0.5×2.4 inches] (W×H×D) / 100g max                                                                                |               |               |               |
| OTHERS                              | COOLING METHOD                       | Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)                                       |               |               |               |

\*1 At rated input(DC110V) and rated load.

\*2 Ripple and ripple noise is measured by using measuring board. Refer to the manual.

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

\*4 Refer to the manual for input range.

The drawing shows the mechanical specifications for the Base Plate (Aluminum). Key features and dimensions include:

- Top View:**
  - Overall width: 58.4 max [2.3]
  - Distance between mounting holes: 48.3 ±0.5 [1.9]
  - Distance from edge to mounting hole: (5.0) [0.2]
  - Mounting hole diameter: 6-φ 1 ±0.1 [0.04]
  - Distance between terminal groups: 50.8 ±0.5 [2]
  - Terminal pitch: 2-φ 2 ±0.2 [0.08]
  - Overall height: 61 max [2.4]
  - Terminal dimensions: 10.16, 7.62, 7.62, 10.16 [0.4] [0.3] [0.3] [0.4]
  - Mounting Hole: 4-M3
- Side View:**
  - Base Plate (Aluminum) thickness: 12.7 ±0.5 [0.5]
  - Case (PBT) thickness: 12.7 [0.5]
  - Case (PBT) mounting hole diameter: 6-φ 1 ±0.1 [0.04]
- Front View:**
  - Terminal labels: -VIN, RC, +VIN, -VOUT, -S, TRIM, +S, +VOUT

[illegible]

※ Div. : 0.2inch

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

**DHS50B****DH****S****50****B****05****-□**

①

②

③

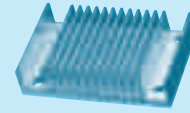
④

⑤

⑥

**RoHS**

\*Providing heat sink  
as option



- ① Series name  
② Single output  
③ Output wattage  
④ B : DC200-400V  
⑤ Output voltage  
⑥ Optional  
T : with Mounting hole  
( $\phi$  3.4 thru)

| MODEL                 | DHS50B03 | DHS50B05 | DHS50B12 | DHS50B15 | DHS50B24 | DHS50B28 |
|-----------------------|----------|----------|----------|----------|----------|----------|
| MAX OUTPUT WATTAGE[W] | 33.0     | 50.0     | 50.4     | 51.0     | 50.4     | 50.4     |
| DC OUTPUT             | 3.3V 10A | 5V 10A   | 12V 4.2A | 15V 3.4A | 24V 2.1A | 28V 1.8A |

**SPECIFICATIONS**

|                                     | MODEL                                | DHS50B03                                                                                                               | DHS50B05    | DHS50B12      | DHS50B15      | DHS50B24      | DHS50B28      |
|-------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------|---------------|---------------|---------------|---------------|
| INPUT                               | VOLTAGE[V]                           | DC200 - 400                                                                                                            |             |               |               |               |               |
|                                     | CURRENT[A]                           | *1 0.15A                                                                                                               | 0.22A       | 0.22A         | 0.22A         | 0.22A         | 0.22A         |
|                                     | EFFICIENCY[%]                        | *1 77.0typ                                                                                                             | 80.0typ     | 83.0typ       | 83.0typ       | 83.0typ       | 82.0typ       |
|                                     |                                      |                                                                                                                        |             |               |               |               |               |
| OUTPUT                              | VOLTAGE[V]                           | 3.3                                                                                                                    | 5           | 12            | 15            | 24            | 28            |
|                                     | CURRENT[A]                           | 10                                                                                                                     | 10          | 4.2           | 3.4           | 2.1           | 1.8           |
|                                     | LINE REGULATION[mV]                  | 10max                                                                                                                  | 10max       | 24max         | 30max         | 48max         | 56max         |
|                                     | LOAD REGULATION[mV]                  | 10max                                                                                                                  | 10max       | 24max         | 30max         | 48max         | 56max         |
|                                     | RIPPLE[mVp-p]                        | 0 to +100℃ *2                                                                                                          | 80max       | 80max         | 120max        | 120max        | 120max        |
|                                     |                                      | -40 to 0℃ *2                                                                                                           | 120max      | 120max        | 150max        | 150max        | 150max        |
|                                     |                                      | 0 to 15% Load *2                                                                                                       | 160max      | 160max        | 240max        | 240max        | 240max        |
|                                     | RIPPLE NOISE[mVp-p]                  | 0 to +100℃ *2                                                                                                          | 120max      | 120max        | 150max        | 150max        | 150max        |
|                                     |                                      | -40 to 0℃ *2                                                                                                           | 200max      | 200max        | 200max        | 250max        | 250max        |
|                                     |                                      | 0 to 15% Load *2                                                                                                       | 240max      | 240max        | 300max        | 300max        | 300max        |
|                                     | TEMPERATURE REGULATION[mV]           | 0 to +65℃                                                                                                              | 35max       | 50max         | 120max        | 150max        | 240max        |
|                                     |                                      | -40 to +100℃                                                                                                           | 66max       | 100max        | 240max        | 480max        | 560max        |
|                                     | DRIFT[mV]                            | *3 16max                                                                                                               | 20max       | 40max         | 60max         | 90max         | 90max         |
|                                     | START-UP TIME[ms]                    | 200max (DCIN 280V, Io=100%)                                                                                            |             |               |               |               |               |
|                                     | OUTPUT VOLTAGE ADJUSTMENT RANGE[V]   | Fixed (TRM pin open), adjustable by external VR or external voltage                                                    |             |               |               |               |               |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | OVERCURRENT PROTECTION               | Works over 105% of rating and recovers automatically                                                                   |             |               |               |               |               |
|                                     | OVERVOLTAGE PROTECTION[V]            | 4.20 - 5.70                                                                                                            | 6.30 - 7.60 | 13.90 - 17.55 | 17.25 - 21.75 | 27.60 - 34.80 | 32.20 - 40.60 |
|                                     | REMOTE SENSING                       | None                                                                                                                   |             |               |               |               |               |
|                                     | REMOTE ON/OFF                        | Provided (Negative Logic L : ON, H : OFF)                                                                              |             |               |               |               |               |
| ISOLATION                           | INPUT-OUTPUT                         | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 15℃)                                        |             |               |               |               |               |
|                                     | INPUT-FG                             | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 15℃)                                        |             |               |               |               |               |
|                                     | OUTPUT-FG                            | AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (20 $\pm$ 15℃)                                         |             |               |               |               |               |
| ENVIRONMENT                         | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +100℃ (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 feet) max |             |               |               |               |               |
|                                     | STORAGE TEMP., HUMID. AND ALTITUDE   | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max                                                    |             |               |               |               |               |
|                                     | VIBRATION                            | 10 - 55Hz, 49.0m/s <sup>2</sup> (5G), 3minutes period, 60minutes each along X, Y and Z axis                            |             |               |               |               |               |
|                                     | IMPACT                               | 196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis                                                     |             |               |               |               |               |
| SAFETY                              | AGENCY APPROVALS                     | UL60950-1, C-UL, EN60950-1                                                                                             |             |               |               |               |               |
| OTHERS                              | CASE SIZE/WEIGHT                     | 58.4×12.7×37.3mm [2.3×0.5×1.47 inches] (W×H×D) / 60g max                                                               |             |               |               |               |               |
|                                     | COOLING METHOD                       | Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)                        |             |               |               |               |               |

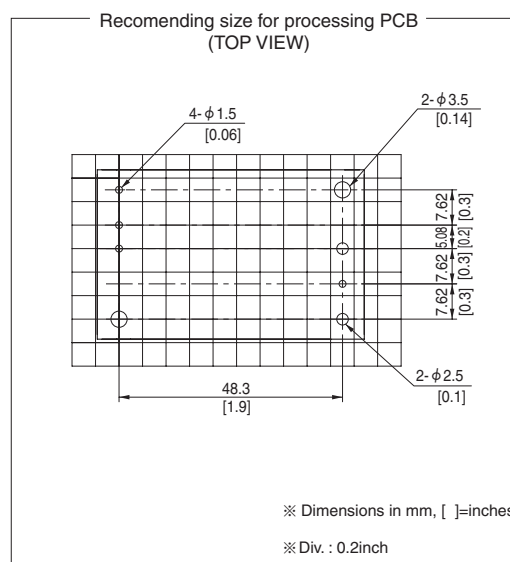
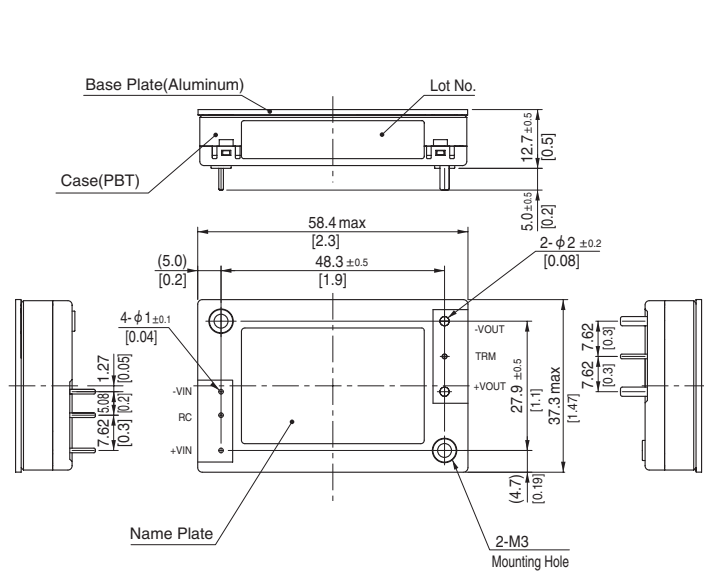
\*1 At rated input(DC280V) and rated load.

\*2 Ripple and ripple noise is measured by using measuring board. Refer to the manual

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

\*4 Refer to the manual for input range.

## External view



※ Tolerance : ±0.3 [±0.012]

※ Weight : 60g max

※ Dimensions in mm, [ ]=inches

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

# DHS100B

DH S 100 B 05 -□

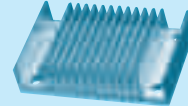
① ② ③ ④ ⑤ ⑥



RoHS



\*Providing heat sink as option



- ① Series name
- ② Single output
- ③ Output wattage
- ④ B : DC200-400V
- ⑤ Output voltage
- ⑥ Optional
- T : with Mounting hole (φ 3.4 thru)

| MODEL                 | DHS100B03 | DHS100B05 | DHS100B12 | DHS100B15 | DHS100B24 | DHS100B28 |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 66.0      | 100.0     | 100.8     | 100.5     | 100.8     | 100.8     |
| DC OUTPUT             | 3.3V 20A  | 5V 20A    | 12V 8.4A  | 15V 6.7A  | 24V 4.2A  | 28V 3.6A  |

## SPECIFICATIONS

|                                     | MODEL                                | DHS100B03                                                                                                              | DHS100B05   | DHS100B12     | DHS100B15     | DHS100B24     | DHS100B28     |
|-------------------------------------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------|---------------|---------------|---------------|---------------|
| INPUT                               | VOLTAGE[V]                           | DC200 - 400                                                                                                            |             |               |               |               |               |
|                                     | CURRENT[A]                           | 0.30A                                                                                                                  | 0.44A       | 0.42A         | 0.42A         | 0.42A         | 0.42A         |
|                                     | EFFICIENCY[%]                        | 79.0typ                                                                                                                | 82.0typ     | 85.0typ       | 86.0typ       | 86.0typ       | 86.0typ       |
|                                     |                                      |                                                                                                                        |             |               |               |               |               |
| OUTPUT                              | VOLTAGE[V]                           | 3.3                                                                                                                    | 5           | 12            | 15            | 24            | 28            |
|                                     | CURRENT[A]                           | 20                                                                                                                     | 20          | 8.4           | 6.7           | 4.2           | 3.6           |
|                                     | LINE REGULATION[mV]                  | 10max                                                                                                                  | 10max       | 24max         | 30max         | 48max         | 56max         |
|                                     | LOAD REGULATION[mV]                  | 10max                                                                                                                  | 10max       | 24max         | 30max         | 48max         | 56max         |
|                                     | RIPPLE[mVp-p]                        | 0 to +100℃ *2                                                                                                          | 80max       | 80max         | 120max        | 120max        | 120max        |
|                                     |                                      | -40 to 0℃ *2                                                                                                           | 120max      | 120max        | 150max        | 150max        | 150max        |
|                                     |                                      | 0 to 15% Load *2                                                                                                       | 160max      | 160max        | 240max        | 240max        | 240max        |
|                                     | RIPPLE NOISE[mVp-p]                  | 0 to +100℃ *2                                                                                                          | 120max      | 120max        | 150max        | 150max        | 150max        |
|                                     |                                      | -40 to 0℃ *2                                                                                                           | 200max      | 200max        | 200max        | 250max        | 250max        |
|                                     |                                      | 0 to 15% Load *2                                                                                                       | 240max      | 240max        | 300max        | 300max        | 300max        |
|                                     | TEMPERATURE REGULATION[mV]           | 0 to +65℃                                                                                                              | 35max       | 50max         | 120max        | 150max        | 280max        |
|                                     |                                      | -40 to +100℃                                                                                                           | 66max       | 100max        | 240max        | 480max        | 560max        |
|                                     | DRIFT[mV]                            | 16max                                                                                                                  | 20max       | 40max         | 60max         | 90max         | 90max         |
|                                     | START-UP TIME[ms]                    | 200max (DCIN 280V, Io=100%)                                                                                            |             |               |               |               |               |
|                                     | OUTPUT VOLTAGE ADJUSTMENT RANGE[V]   | Fixed (TRM pin open), adjustable by external VR or external voltage                                                    |             |               |               |               |               |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | OVERCURRENT PROTECTION               | Works over 105% of rating and recovers automatically                                                                   |             |               |               |               |               |
|                                     | OVERVOLTAGE PROTECTION[V]            | 4.20 - 5.70                                                                                                            | 6.30 - 7.60 | 13.90 - 17.55 | 17.25 - 21.75 | 27.60 - 34.80 | 32.20 - 40.60 |
|                                     | REMOTE SENSING                       | None                                                                                                                   |             |               |               |               |               |
|                                     | REMOTE ON/OFF                        | Provided (Negative Logic L : ON, H : OFF)                                                                              |             |               |               |               |               |
| ISOLATION                           | INPUT-OUTPUT                         | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                                                      |             |               |               |               |               |
|                                     | INPUT-FG                             | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)                                                      |             |               |               |               |               |
|                                     | OUTPUT-FG                            | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15℃)                                                       |             |               |               |               |               |
| ENVIRONMENT                         | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +100℃ (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 feet) max |             |               |               |               |               |
|                                     | STORAGE TEMP., HUMID. AND ALTITUDE   | -40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max                                                    |             |               |               |               |               |
|                                     | VIBRATION                            | 10 - 55Hz, 49.0m/s <sup>2</sup> (5G), 3minutes period, 60minutes each along X, Y and Z axis                            |             |               |               |               |               |
|                                     | IMPACT                               | 196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis                                                     |             |               |               |               |               |
| SAFETY                              | AGENCY APPROVALS                     | UL60950-1, C-UL, EN60950-1                                                                                             |             |               |               |               |               |
| OTHERS                              | CASE SIZE/WEIGHT                     | 58.4×12.7×37.3mm [2.3×0.5×1.47 inches] (W×H×D) / 60g max                                                               |             |               |               |               |               |
|                                     | COOLING METHOD                       | Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)                        |             |               |               |               |               |

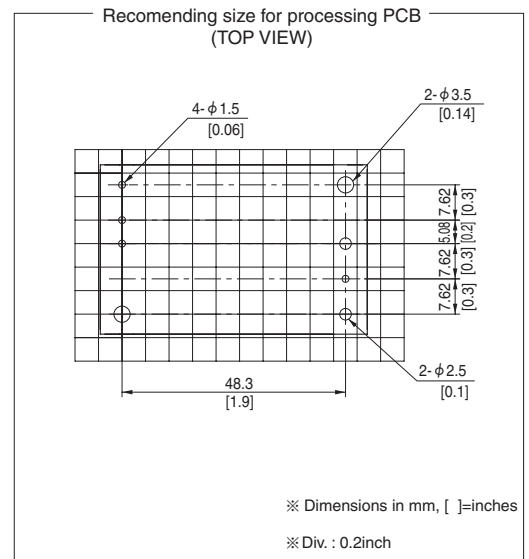
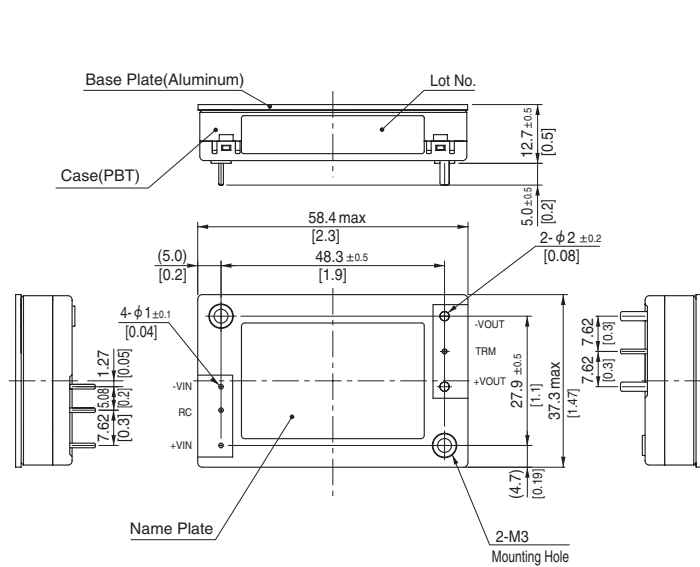
\*1 At rated input(DC280V) and rated load.

\*2 Ripple and ripple noise is measured by using measuring board. Refer to the manual.

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

\*4 Refer to the manual for input range.

## External view



※ Tolerance : ±0.3 [±0.012]

※ Weight : 60g max

※ Dimensions in mm, [ ]=inches

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

## DHS250B

DH

S

250

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05

-□

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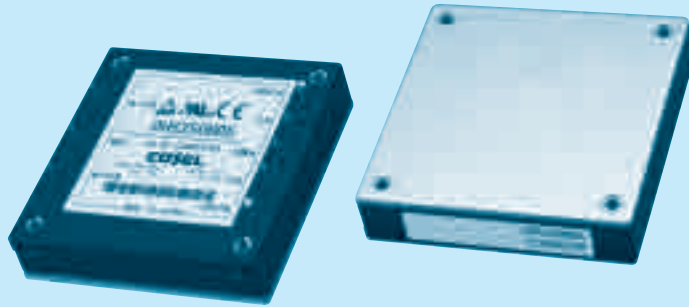
④

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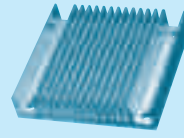
⑥



RoHS



\*Providing heat sink  
as option



- ① Series name  
② Single output  
③ Output wattage  
④ B : DC200-400V  
⑤ Output voltage  
⑥ Optional  
T : with Mounting hole  
( $\phi$  3.4 thru)

| MODEL                 | DHS250B03 | DHS250B05 | DHS250B07 | DHS250B12 | DHS250B15 | DHS250B24 | DHS250B28 | DHS250B48 |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 165.0     | 250.0     | 247.5     | 252.0     | 247.5     | 252.0     | 252.0     | 249.6     |
| DC OUTPUT             | 3.3V 50A  | 5V 50A    | 7.5V 33A  | 12V 21A   | 15V 16.5A | 24V 10.5A | 28V 9.0A  | 48V 5.2A  |

## SPECIFICATIONS

|                                     | MODEL                                | DHS250B03                                                                                                               | DHS250B05   | DHS250B07    | DHS250B12     | DHS250B15     | DHS250B24     | DHS250B28     | DHS250B48     |
|-------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|--------------|---------------|---------------|---------------|---------------|---------------|
| INPUT                               | VOLTAGE[V]                           | DC200 - 400                                                                                                             |             |              |               |               |               |               |               |
|                                     | CURRENT[A]                           | *1 0.67A                                                                                                                | 1.0A        | 1.0A         | 1.0A          | 1.0A          | 1.0A          | 1.0A          | 1.0A          |
|                                     | EFFICIENCY[%]                        | *1 88.0typ                                                                                                              | 90.0typ     | 88.0typ      | 88.0typ       | 88.0typ       | 88.0typ       | 88.0typ       | 89.0typ       |
|                                     |                                      |                                                                                                                         |             |              |               |               |               |               |               |
| OUTPUT                              | VOLTAGE[V]                           | 3.3                                                                                                                     | 5           | 7.5          | 12            | 15            | 24            | 28            | 48            |
|                                     | CURRENT[A]                           | 50                                                                                                                      | 50          | 33           | 21            | 16.5          | 10.5          | 9.0           | 5.2           |
|                                     | LINE REGULATION[mV]                  | 10max                                                                                                                   | 10max       | 20max        | 24max         | 30max         | 48max         | 56max         | 96max         |
|                                     | LOAD REGULATION[mV]                  | 10max                                                                                                                   | 10max       | 20max        | 24max         | 30max         | 48max         | 56max         | 96max         |
|                                     | RIPPLE[mVp-p]                        | 0 to +100°C *2                                                                                                          | 80max       | 80max        | 100max        | 120max        | 120max        | 120max        | 200max        |
|                                     |                                      | -40 to 0°C *2                                                                                                           | 120max      | 120max       | 130max        | 150max        | 150max        | 150max        | 250max        |
|                                     |                                      | 0 to 15% Load *2                                                                                                        | 160max      | 160max       | 200max        | 240max        | 240max        | 240max        | 400max        |
|                                     | RIPPLE NOISE[mVp-p]                  | 0 to +100°C *2                                                                                                          | 120max      | 120max       | 130max        | 150max        | 150max        | 150max        | 250max        |
|                                     |                                      | -40 to 0°C *2                                                                                                           | 200max      | 200max       | 200max        | 200max        | 250max        | 250max        | 400max        |
|                                     |                                      | 0 to 15% Load *2                                                                                                        | 240max      | 240max       | 260max        | 300max        | 300max        | 300max        | 500max        |
|                                     | TEMPERATURE REGULATION[mV]           | 0 to +65°C                                                                                                              | 35max       | 50max        | 70max         | 120max        | 150max        | 240max        | 480max        |
|                                     |                                      | -40 to +100°C                                                                                                           | 66max       | 100max       | 140max        | 240max        | 300max        | 480max        | 960max        |
|                                     | DRIFT[mV]                            | *3 16max                                                                                                                | 20max       | 30max        | 40max         | 60max         | 90max         | 90max         | 180max        |
|                                     | START-UP TIME[ms]                    | 200max (DCIN 280V, Io=100%)                                                                                             |             |              |               |               |               |               |               |
|                                     | OUTPUT VOLTAGE ADJUSTMENT RANGE[V]   | Fixed (TRM pin open), adjustable by external VR or external voltage                                                     |             |              |               |               |               |               |               |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | OVERCURRENT PROTECTION               | Works over 105% of rating and recovers automatically                                                                    |             |              |               |               |               |               |               |
|                                     | OVERVOLTAGE PROTECTION[V]            | 4.20 - 4.85                                                                                                             | 6.30 - 7.30 | 8.70 - 10.20 | 13.90 - 16.35 | 17.25 - 20.25 | 27.60 - 32.40 | 32.20 - 37.80 | 55.20 - 64.80 |
|                                     | REMOTE SENSING                       | Provided                                                                                                                |             |              |               |               |               |               |               |
|                                     | REMOTE ON/OFF                        | Provided (Negative Logic L : ON, H : OFF)                                                                               |             |              |               |               |               |               |               |
| ISOLATION                           | INPUT-OUTPUT                         | AC3,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 15°C)                                        |             |              |               |               |               |               |               |
|                                     | INPUT-FG                             | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50M $\Omega$ min (20 $\pm$ 15°C)                                        |             |              |               |               |               |               |               |
|                                     | OUTPUT-FG                            | AC500V 1minute, Cutoff current = 100mA, DC500V 50M $\Omega$ min (20 $\pm$ 15°C)                                         |             |              |               |               |               |               |               |
| ENVIRONMENT                         | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +100°C (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000 feet) max |             |              |               |               |               |               |               |
|                                     | STORAGE TEMP., HUMID. AND ALTITUDE   | -40 to +100°C, 20 - 95%RH (Non condensing), 9,000m (30,000 feet) max                                                    |             |              |               |               |               |               |               |
|                                     | VIBRATION                            | 10 - 55Hz, 49.0m/s <sup>2</sup> (5G), 3minutes period, 60minutes each along X, Y and Z axis                             |             |              |               |               |               |               |               |
|                                     | IMPACT                               | 196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis                                                      |             |              |               |               |               |               |               |
| SAFETY                              | AGENCY APPROVALS                     | UL60950-1, C-UL, EN60950-1                                                                                              |             |              |               |               |               |               |               |
| OTHERS                              | CASE SIZE/WEIGHT                     | 58.4×12.7×61mm [2.3×0.5×2.4 inches](W×H×D) / 100g max                                                                   |             |              |               |               |               |               |               |
|                                     | COOLING METHOD                       | Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)                         |             |              |               |               |               |               |               |

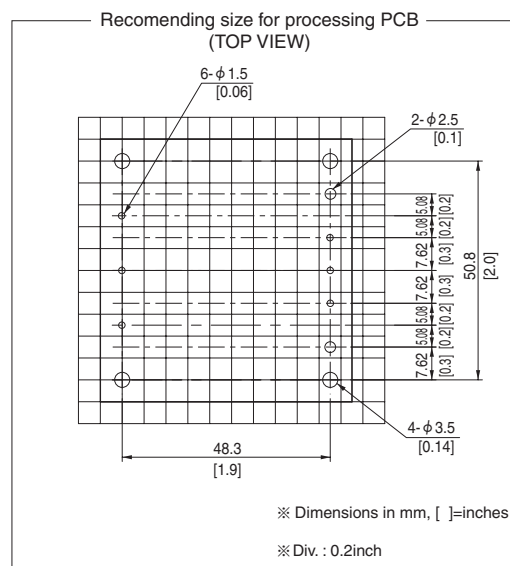
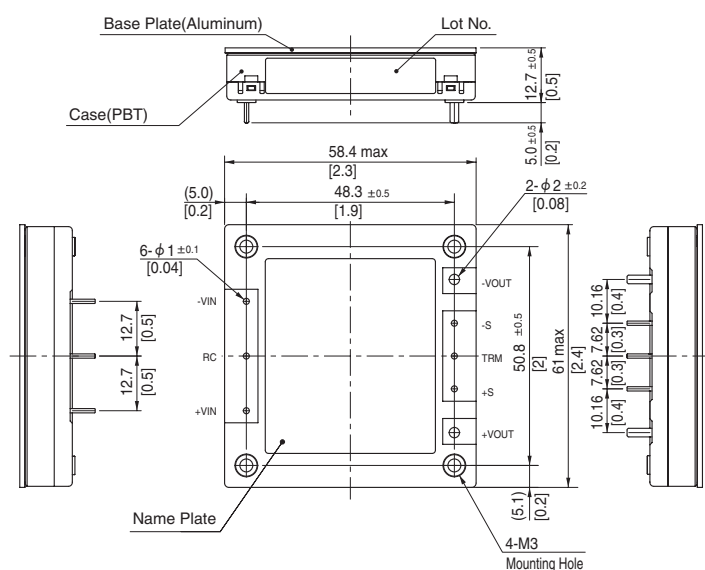
\*1 At rated input(DC280V) and rated load.

\*2 Ripple and ripple noise is measured by using measuring board. Refer to the manual.

\*3 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.

\*4 Refer to the manual for input range.

## External view



※ Tolerance : ±0.3 [±0.012]

※ Weight : 100g max

※ Dimensions in mm, [ ]=inches

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

# Mouser Electronics

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[DHS50B12-T](#) [DHS250B12](#) [DHS200A24-T](#) [DHS100B05](#) [DHS250B28](#) [DHS50B24](#) [DHS50A12-T](#) [DHS100A24-T](#)



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

Наши преимущества:

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

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

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



#### Как с нами связаться

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

**Факс:** 8 (812) 320-02-42

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

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