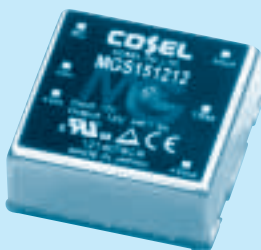
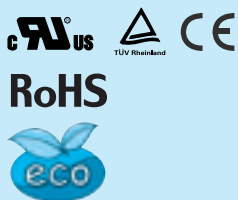


## MGS15

MG S 15 24 05 -□

① ② ③ ④ ⑤ ⑥



- ① Series name  
 ② Single output  
 ③ Output wattage  
 ④ Input voltage  
 ⑤ Output voltage  
 ⑥ Optional  
 G : Capacitor between  
   Input and Output is removed.  
 R : with Remote ON/OFF  
   (Positive logic control)

| MODEL                 |               | MGS15123R3 | MGS151205 | MGS151212 | MGS151215 | MGS15243R3 | MGS152405 | MGS152412 | MGS152415 |
|-----------------------|---------------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] |               | 13.2       | 15        | 15.6      | 15        | 13.2       | 15        | 15.6      | 15        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3        | 5         | 12        | 15        | 3.3        | 5         | 12        | 15        |
|                       | CURRENT[A]    | 4          | 3         | 1.3       | 1         | 4          | 3         | 1.3       | 1         |

MG

## SPECIFICATIONS

|                                     | MODEL                           | MGS15123R3                                                                  | MGS151205     | MGS151212       | MGS151215       | MGS15243R3    | MGS152405     | MGS152412       | MGS152415       |
|-------------------------------------|---------------------------------|-----------------------------------------------------------------------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|-----------------|
| INPUT                               | VOLTAGE[V]                      | DC9 - 18                                                                    |               |                 |                 | DC18 - 36     |               |                 |                 |
|                                     | CURRENT[A] *2                   | 1.28typ                                                                     | 1.44typ       | 1.49typ         | 1.42typ         | 0.63typ       | 0.70typ       | 0.73typ         | 0.70typ         |
|                                     | EFFICIENCY[%] *2                | 86typ                                                                       | 87typ         | 87typ           | 88typ           | 87typ         | 89typ         | 89typ           | 89typ           |
| OUTPUT                              | VOLTAGE[V]                      | 3.3                                                                         | 5             | 12              | 15              | 3.3           | 5             | 12              | 15              |
|                                     | CURRENT[A]                      | 4                                                                           | 3             | 1.3             | 1               | 4             | 3             | 1.3             | 1               |
|                                     | LINE REGULATION[mV]             | 13.2max                                                                     | 20max         | 48max           | 60max           | 13.2max       | 20max         | 48max           | 60max           |
|                                     | LOAD REGULATION[mV]             | 13.2max                                                                     | 20max         | 48max           | 60max           | 13.2max       | 20max         | 48max           | 60max           |
|                                     | RIPPLE[mVp-p] *3                | -20 to +60°C                                                                | 75max         | 75max           | 100max          | 100max        | 75max         | 75max           | 100max          |
|                                     |                                 | -40 to -20°C                                                                | 100max        | 100max          | 120max          | 120max        | 100max        | 120max          | 120max          |
|                                     | RIPPLE NOISE[mVp-p] *3          | -20 to +60°C                                                                | 75max         | 75max           | 100max          | 100max        | 75max         | 75max           | 100max          |
|                                     |                                 | -40 to -20°C                                                                | 150max        | 150max          | 150max          | 150max        | 150max        | 150max          | 150max          |
|                                     | TEMPERATURE REGULATION[mV]      | -20 to +60°C                                                                | 50max         | 50max           | 150max          | 180max        | 50max         | 50max           | 150max          |
|                                     |                                 | -40 to +60°C                                                                | 80max         | 80max           | 240max          | 290max        | 80max         | 80max           | 240max          |
|                                     | DRIFT[mV] *4                    | 20max                                                                       | 20max         | 48max           | 60max           | 20max         | 20max         | 48max           | 60max           |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | START-UP TIME[ms]               | 30max (Minimum input, Io=100%)                                              |               |                 |                 |               |               |                 |                 |
|                                     | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) Available to adjust ±10% by external variable resistor |               |                 |                 |               |               |                 |                 |
|                                     | OUTPUT VOLTAGE SETTING[V] *5    | 3.296 - 3.404                                                               | 4.975 - 5.137 | 11.857 - 12.243 | 14.839 - 15.321 | 3.296 - 3.404 | 4.975 - 5.137 | 11.857 - 12.243 | 14.839 - 15.321 |
|                                     | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically                        |               |                 |                 |               |               |                 |                 |
|                                     | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                                       |               |                 |                 |               |               |                 |                 |

| MODEL                 |              | MGS15483R3 | MGS154805 | MGS154812 | MGS154815 |
|-----------------------|--------------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] |              | 13.2       | 15        | 15.6      | 15        |
| DC OUTPUT             | VOLTAGE[V]※1 | 3.3        | 5         | 12        | 15        |
|                       | CURRENT[A]   | 4          | 3         | 1.3       | 1         |

## SPECIFICATIONS

|                                     | MODEL                           | MGS15483R3                                           | MGS154805     | MGS154812       | MGS154815       |
|-------------------------------------|---------------------------------|------------------------------------------------------|---------------|-----------------|-----------------|
| INPUT                               | VOLTAGE[V]                      | DC36 - 76                                            |               |                 |                 |
|                                     | CURRENT[A] *2                   | 0.32typ                                              | 0.35typ       | 0.36typ         | 0.35typ         |
|                                     | EFFICIENCY[%] *2                | 87typ                                                | 89typ         | 90typ           | 90typ           |
| OUTPUT                              | VOLTAGE[V]                      | 3.3                                                  | 5             | 12              | 15              |
|                                     | CURRENT[A]                      | 4                                                    | 3             | 1.3             | 1               |
|                                     | LINE REGULATION[mV]             | 13.2max                                              | 20max         | 48max           | 60max           |
|                                     | LOAD REGULATION[mV]             | 13.2max                                              | 20max         | 48max           | 60max           |
|                                     | RIPPLE[mVp-p] *3                | -20 to +60°C                                         | 75max         | 75max           | 100max          |
|                                     |                                 | -40 to -20°C                                         | 100max        | 100max          | 120max          |
|                                     | RIPPLE NOISE[mVp-p] *3          | -20 to +60°C                                         | 75max         | 75max           | 100max          |
|                                     |                                 | -40 to -20°C                                         | 150max        | 150max          | 150max          |
|                                     | TEMPERATURE REGULATION[mV]      | -20 to +60°C                                         | 50max         | 50max           | 150max          |
|                                     |                                 | -40 to +60°C                                         | 80max         | 80max           | 240max          |
|                                     | DRIFT[mV] *4                    | 20max                                                | 20max         | 48max           | 60max           |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | START-UP TIME[ms]               | 30max (Minimum input, Io=100%)                       |               |                 |                 |
|                                     | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±10% adjustable by external VR  |               |                 |                 |
|                                     | OUTPUT VOLTAGE SETTING[V] *5    | 3.296 - 3.404                                        | 4.975 - 5.137 | 11.857 - 12.243 | 14.839 - 15.321 |
|                                     | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |               |                 |                 |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |               |                 |                 |

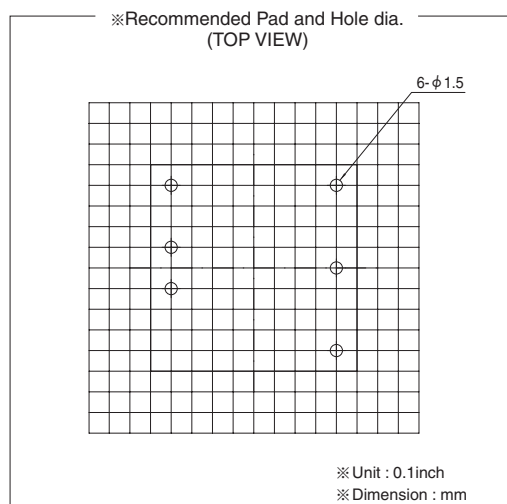
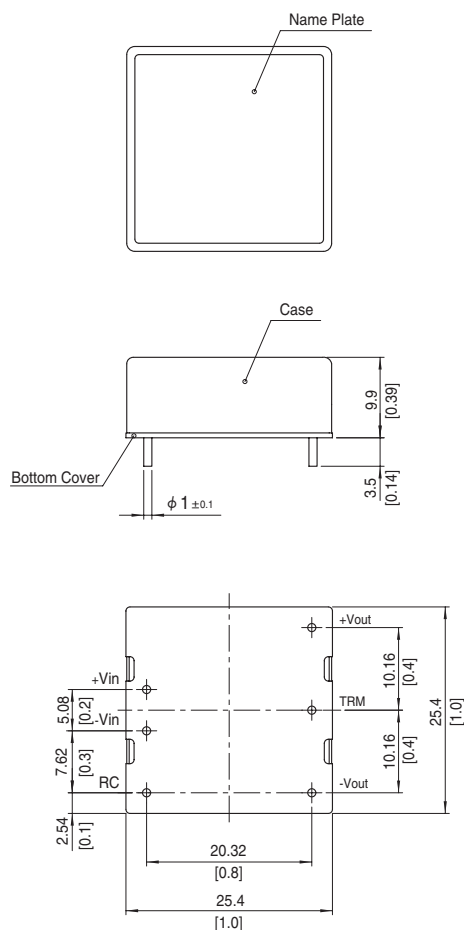
## GENERAL SPECIFICATIONS

|             |                                      |                                                                                              |
|-------------|--------------------------------------|----------------------------------------------------------------------------------------------|
| ISOLATION   | INPUT-OUTPUT                         | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                         |
|             | INPUT-CASE                           | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                         |
|             | OUTPUT-CASE                          | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)                         |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +85℃, 20 to 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max       |
|             | STORAGE TEMP., HUMID. AND ALTITUDE   | -40 to +100℃, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max                          |
|             | VIBRATION                            | 10 - 55Hz, 98.0m/s <sup>2</sup> (10G), 3minutes period, 60minutes each along X, Y and Z axis |
|             | IMPACT                               | 490.3m/s <sup>2</sup> (50G), 11ms, once each along X, Y and Z axis                           |
| SAFETY      | AGENCY APPROVALS                     | UL60950-1, C-UL, EN60950-1                                                                   |
| OTHERS      | CASE SIZE/WEIGHT                     | 25.4 X 9.9 X 25.4mm [1 X 0.39 X 1 inches] (W X H X D) / 20g max                              |
|             | COOLING METHOD                       | Convection/Forced air                                                                        |

- \*1 MGW15xx05/MGW15xx12/MGW15xx15 is available as single output, +10V/+24V/+30V
- \*2 Rated input 12V, 24V or 48V DC I<sub>o</sub>=100%
- \*3 Ripple and Ripple Noise is measured by using test board with ceramic capacitor 22μF at 50mm from output pins. (20MHz Oscilloscope)
- \*4 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25℃.
- \*5 Rated input voltage (DC12V, DC24V, DC48V), rated output wattage, ambient temperature at 25℃.
- \* Parallel operation with other model is not possible.

## External view

MG

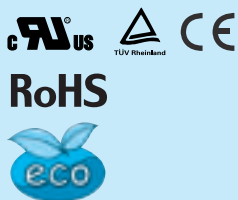


- ※ Tolerance ±0.5 [±0.02]
- ※ Dimensions in mm, [ ]=inches
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Bottom Cover : FR4 (t=0.6) [t=0.024]
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Weight 20g max

## MGS30

MG S 30 24 05 -□

① ② ③ ④ ⑤ ⑥



- ① Series name  
 ② Single output  
 ③ Output wattage  
 ④ Input voltage  
 ⑤ Output voltage  
 ⑥ Optional  
 G : Capacitor between  
   Input and Output is removed.  
 R : with Remote ON/OFF  
   (Positive logic control)

| MODEL                 | MGS30123R3    | MGS301205 | MGS301212 | MGS301215 | MGS30243R3 | MGS302405 | MGS302412 | MGS302415 |
|-----------------------|---------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 26.4          | 30        | 30        | 30        | 26.4       | 30        | 30        | 30        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3       | 5         | 12        | 15         | 3.3       | 5         | 12        |
|                       | CURRENT[A]    | 8         | 6         | 2.5       | 2          | 8         | 6         | 2.5       |

## SPECIFICATIONS

|                                     | MODEL                           | MGS30123R3                                           | MGS301205     | MGS301212       | MGS301215       | MGS30243R3    | MGS302405     | MGS302412       | MGS302415       |
|-------------------------------------|---------------------------------|------------------------------------------------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|-----------------|
| INPUT                               | VOLTAGE[V]                      | DC9 - 18                                             |               |                 |                 | DC18 - 36     |               |                 |                 |
|                                     | CURRENT[A] *2                   | 2.45typ                                              | 2.75typ       | 2.78typ         | 2.78typ         | 1.21typ       | 1.36typ       | 1.36typ         | 1.36typ         |
|                                     | EFFICIENCY[%] *2                | 90typ                                                | 91typ         | 90typ           | 90typ           | 91typ         | 92typ         | 92typ           | 92typ           |
| OUTPUT                              | VOLTAGE[V]                      | 3.3                                                  | 5             | 12              | 15              | 3.3           | 5             | 12              | 15              |
|                                     | CURRENT[A]                      | 8                                                    | 6             | 2.5             | 2               | 8             | 6             | 2.5             | 2               |
|                                     | LINE REGULATION[mV]             | 13.2max                                              | 20max         | 48max           | 60max           | 13.2max       | 20max         | 48max           | 60max           |
|                                     | LOAD REGULATION[mV]             | 13.2max                                              | 20max         | 48max           | 60max           | 13.2max       | 20max         | 48max           | 60max           |
|                                     | RIPPLE[mVp-p] *3                | -20 to +60℃                                          | 75max         | 75max           | 100max          | 100max        | 75max         | 75max           | 100max          |
|                                     |                                 | -40 to -20℃                                          | 100max        | 100max          | 120max          | 120max        | 100max        | 100max          | 120max          |
|                                     | RIPPLE NOISE[mVp-p] *3          | -20 to +60℃                                          | 75max         | 75max           | 100max          | 100max        | 75max         | 75max           | 100max          |
|                                     |                                 | -40 to -20℃                                          | 150max        | 150max          | 150max          | 150max        | 150max        | 150max          | 150max          |
|                                     | TEMPERATURE REGULATION[mV]      | -20 to +60℃                                          | 50max         | 50max           | 150max          | 180max        | 50max         | 50max           | 150max          |
|                                     |                                 | -40 to +60℃                                          | 80max         | 80max           | 240max          | 290max        | 80max         | 80max           | 240max          |
|                                     | DRIFT[mV] *4                    | 20max                                                | 20max         | 48max           | 60max           | 20max         | 20max         | 48max           | 60max           |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | START-UP TIME[ms]               | 30max (Minimum input, Io=100%)                       |               |                 |                 |               |               |                 |                 |
|                                     | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±10% adjustable by external VR  |               |                 |                 |               |               |                 |                 |
|                                     | OUTPUT VOLTAGE SETTING[V] *5    | 3.296 - 3.404                                        | 4.975 - 5.137 | 11.857 - 12.243 | 14.839 - 15.321 | 3.296 - 3.404 | 4.975 - 5.137 | 11.857 - 12.243 | 14.839 - 15.321 |
|                                     | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |               |                 |                 |               |               |                 |                 |
|                                     | OVERVOLTAGE PROTECTION[V]       | Works over 120 to 160% of rating                     |               |                 |                 |               |               |                 |                 |
|                                     | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |               |                 |                 |               |               |                 |                 |

| MODEL                 | MGS30483R3    | MGS304805 | MGS304812 | MGS304815 |
|-----------------------|---------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 26.4          | 30        | 30        | 30        |
| DC OUTPUT             | VOLTAGE[V] *1 | 3.3       | 5         | 12        |
|                       | CURRENT[A]    | 8         | 6         | 2.5       |

## SPECIFICATIONS

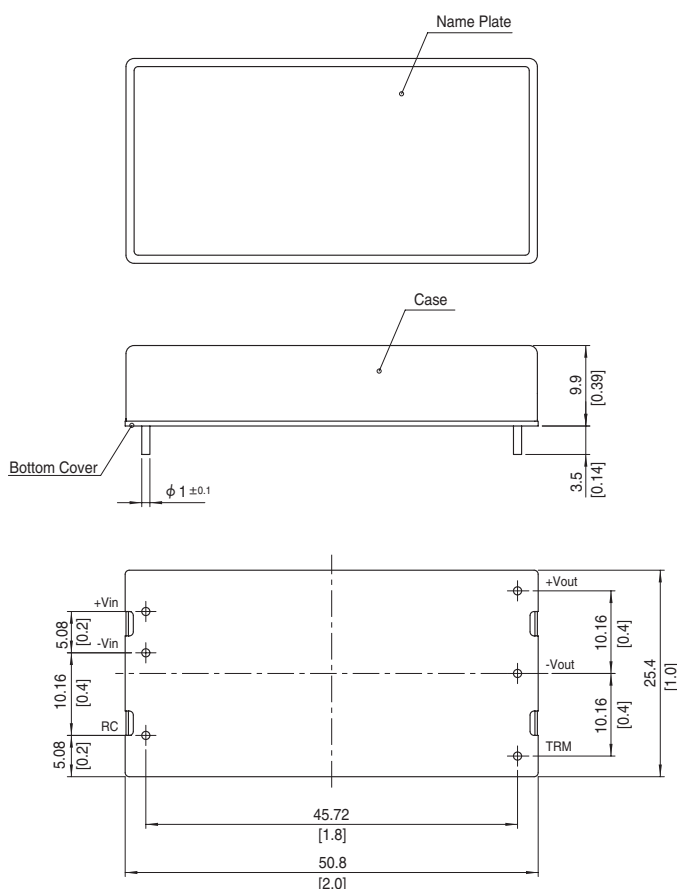
|                                     | MODEL                           | MGS30483R3                                           | MGS304805     | MGS304812       | MGS304815       |
|-------------------------------------|---------------------------------|------------------------------------------------------|---------------|-----------------|-----------------|
| INPUT                               | VOLTAGE[V]                      | DC36 - 76                                            |               |                 |                 |
|                                     | CURRENT[A] *2                   | 0.61typ                                              | 0.68typ       | 0.68typ         | 0.68typ         |
|                                     | EFFICIENCY[%] *2                | 91typ                                                | 92typ         | 92typ           | 92typ           |
| OUTPUT                              | VOLTAGE[V]                      | 3.3                                                  | 5             | 12              | 15              |
|                                     | CURRENT[A]                      | 8                                                    | 6             | 2.5             | 2               |
|                                     | LINE REGULATION[mV]             | 13.2max                                              | 20max         | 48max           | 60max           |
|                                     | LOAD REGULATION[mV]             | 13.2max                                              | 20max         | 48max           | 60max           |
|                                     | RIPPLE[mVp-p] *3                | -20 to +60℃                                          | 75max         | 75max           | 100max          |
|                                     |                                 | -40 to -20℃                                          | 100max        | 100max          | 120max          |
|                                     | RIPPLE NOISE[mVp-p] *3          | -20 to +60℃                                          | 75max         | 75max           | 100max          |
|                                     |                                 | -40 to -20℃                                          | 150max        | 150max          | 150max          |
|                                     | TEMPERATURE REGULATION[mV]      | -20 to +60℃                                          | 50max         | 50max           | 150max          |
|                                     |                                 | -40 to +60℃                                          | 80max         | 80max           | 240max          |
|                                     | DRIFT[mV] *4                    | 20max                                                | 20max         | 48max           | 60max           |
| PROTECTION<br>CIRCUIT AND<br>OTHERS | START-UP TIME[ms]               | 30max (Minimum input, Io=100%)                       |               |                 |                 |
|                                     | OUTPUT VOLTAGE ADJUSTMENT RANGE | Fixed (TRM pin open) ±10% adjustable by external VR  |               |                 |                 |
|                                     | OUTPUT VOLTAGE SETTING[V] *5    | 3.296 - 3.404                                        | 4.975 - 5.137 | 11.857 - 12.243 | 14.839 - 15.321 |
|                                     | OVERCURRENT PROTECTION          | Works over 105% of rating and recovers automatically |               |                 |                 |
|                                     | OVERVOLTAGE PROTECTION[V]       | Works over 120 to 160% of rating                     |               |                 |                 |
|                                     | REMOTE ON/OFF                   | Provided (Negative logic L:ON, H:OFF)                |               |                 |                 |

## GENERAL SPECIFICATIONS

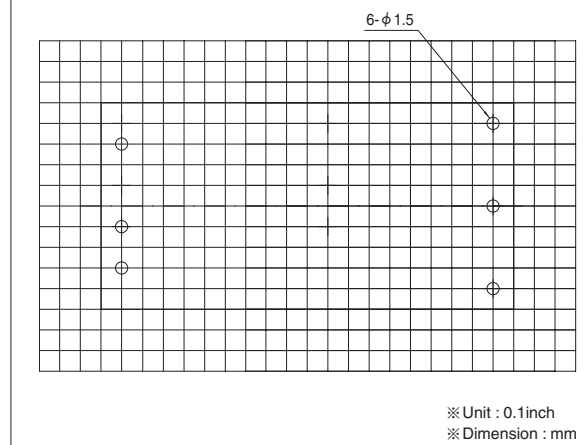
|             |                                      |                                                                                                    |
|-------------|--------------------------------------|----------------------------------------------------------------------------------------------------|
| ISOLATION   | INPUT-OUTPUT                         | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)     |
|             | INPUT-CASE                           | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)     |
|             | OUTPUT-CASE                          | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000M $\Omega$ min (20 $\pm$ 15 $^{\circ}$ C)     |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +85 $^{\circ}$ C, 20 to 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max |
|             | STORAGE TEMP., HUMID. AND ALTITUDE   | -40 to +100 $^{\circ}$ C, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max                    |
|             | VIBRATION                            | 10 - 55Hz, 98.0m/s $^2$ (10G), 3minutes period, 60minutes each along X, Y and Z axis               |
| SAFETY      | IMPACT                               | 490.3m/s $^2$ (50G), 11ms, once each along X, Y and Z axis                                         |
|             | AGENCY APPROVALS                     | UL60950-1, C-UL, EN60950-1                                                                         |
| OTHERS      | CASE SIZE/WEIGHT                     | 25.4 X 9.9 X 50.8mm [1 X 0.39 X 2 inches] (W X H X D) / 40g max                                    |
|             | COOLING METHOD                       | Convection/Forced air                                                                              |

- \*1 MGW30xx05/MGW30xx12/MGW30xx15 is available as single output, +10V/+24V/+30V
- \*2 Rated input 12V, 24V or 48V DC  $I_o=100\%$
- \*3 Ripple and Ripple Noise is measured by using test board with ceramic capacitor 22 $\mu$ F at 50mm from output pins. (20MHz Oscilloscope)
- \*4 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25 $^{\circ}$ C.
- \*5 Rated input voltage (DC12V, DC24V, DC48V), rated output wattage, ambient temperature at 25 $^{\circ}$ C.
- \* Parallel operation with other model is not possible.

## External view



※Recommended Pad and Hole dia.  
(TOP VIEW)



- ※ Tolerance  $\pm 0.5$  [ $\pm 0.02$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Bottom Cover : FR4 ( $t=0.6$ ) [ $t=0.024$ ]
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Weight 40g max

# Mouser Electronics

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## Cosel:

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[MGS304815](#) [MGS304815-R](#) [MGS30483R3](#) [MGS30483R3-R](#) [MGS302415-R](#) [MGS30243R3](#) [MGS30243R3-R](#)  
[MGS304805](#) [MGS304805-R](#) [MGS304812](#) [MGS302405](#) [MGS302405-R](#) [MGS302412](#) [MGS302412-G](#) [MGS302412-R](#)  
[MGS302415](#) [MGS301212-R](#) [MGS301215](#) [MGS301215-R](#) [MGS30123R3](#) [MGS30123R3-R](#) [MGS154815-R](#)  
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[MGS154812](#) [MGS154812-G](#) [MGS154812-R](#) [MGS154815](#) [MGS152412-G](#) [MGS152412-R](#) [MGS152415](#)  
[MGS152415-R](#) [MGS15243R3](#) [MGS15243R3-R](#) [MGS151215-R](#) [MGS15123R3](#) [MGS15123R3-R](#) [MGS152405](#)  
[MGS152405-R](#) [MGS152412](#)



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);
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- 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

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