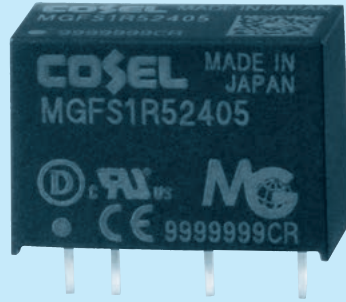


MGFS1R5

MGF S 1R5 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
- Y2: Output voltage adjustable (+10%, -5%)

| MODEL | MGFS1R5243R3 | MGFS1R52405 | MGFS1R52412 | MGFS1R52415 |
|-----------------------|--------------|-------------|-------------|-------------|
| MAX OUTPUT WATTAGE[W] | 1.32 | 1.50 | 1.56 | 1.50 |
| DC OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 |
| | CURRENT[A] | 0.4 | 0.3 | 0.13 |

SPECIFICATIONS

| | MODEL | MGFS1R5243R3 | MGFS1R52405 | MGFS1R52412 | MGFS1R52415 | |
|--------------------|----------------------------|--|-------------|---------------|---------------|--------|
| INPUT | VOLTAGE[V] | DC9 - 36(Surge voltage 50V,100ms max) | | | | |
| | CURRENT[A] | *1 0.072typ | 0.079typ | 0.079typ | 0.077typ | |
| | EFFICIENCY[%] | *1 77typ | 80typ | 83typ | 82typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 0.4 | 0.3 | 0.13 | 0.1 | |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] | *2 120max | 120max | 150max | 150max | |
| | RIPPLE NOISE[mVp-p] | *2 200max | 200max | 200max | 200max | |
| | TEMPERATURE REGULATION[mV] | -20 to +85°C | 50max | 50max | 150max | 180max |
| | | -40 to +85°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] | *3 20max | 20max | 48max | 60max | |
| | START-UP TIME[ms] | 30max (Minimum input, I _o =100%) | | | | |
| PROTECTION CIRCUIT | OUTPUT VOLTAGE SETTING[V] | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | |
| | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |

| MODEL | MGFS1R5483R3 | MGFS1R54805 | MGFS1R54812 | MGFS1R54815 |
|-----------------------|--------------|-------------|-------------|-------------|
| MAX OUTPUT WATTAGE[W] | 1.32 | 1.50 | 1.56 | 1.50 |
| DC OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 |
| | CURRENT[A] | 0.4 | 0.3 | 0.13 |

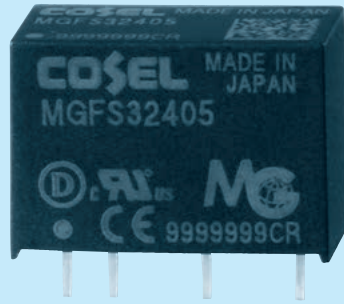
SPECIFICATIONS

| | MODEL | MGFS1R5483R3 | MGFS1R54805 | MGFS1R54812 | MGFS1R54815 | |
|--------------------|----------------------------|--|-------------|---------------|---------------|--------|
| INPUT | VOLTAGE[V] | DC18 - 76(Surge voltage 100V,100ms max) | | | | |
| | CURRENT[A] | *1 0.037typ | 0.040typ | 0.040typ | 0.039typ | |
| | EFFICIENCY[%] | *1 76typ | 79typ | 82typ | 81typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 0.4 | 0.3 | 0.13 | 0.1 | |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] | *2 120max | 120max | 150max | 150max | |
| | RIPPLE NOISE[mVp-p] | *2 200max | 200max | 200max | 200max | |
| | TEMPERATURE REGULATION[mV] | -20 to +85°C | 50max | 50max | 150max | 180max |
| | | -40 to +85°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] | *3 20max | 20max | 48max | 60max | |
| | START-UP TIME[ms] | 30max (Minimum input, I _o =100%) | | | | |
| PROTECTION CIRCUIT | OUTPUT VOLTAGE SETTING[V] | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | |
| | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |

MGFS3

MGF S 3 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
- Y2: Output voltage adjustable (+10%, -5%)

| MODEL | MGFS3243R3 | MGFS32405 | MGFS32412 | MGFS32415 |
|-----------------------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 2.64 | 3.00 | 3.00 | 3.00 |
| DC OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 |
| | CURRENT[A] | 0.8 | 0.6 | 0.25 |

SPECIFICATIONS

| | MODEL | MGFS3243R3 | MGFS32405 | MGFS32412 | MGFS32415 |
|--------------------|----------------------------|--|-------------|---------------|---------------|
| INPUT | VOLTAGE[V] | DC9 - 36 (Surge voltage 50V,100ms max) (Refer to the instruction manual for input voltage derating.) | | | |
| | CURRENT[A] | *1 0.15typ | 0.16typ | 0.15typ | 0.15typ |
| | EFFICIENCY[%] | *1 78typ | 81typ | 85typ | 84typ |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 |
| | CURRENT[A] | 0.8 | 0.6 | 0.25 | 0.2 |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max |
| | RIPPLE[mVp-p] | *2 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | *2 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +75°C 50max | 50max | 150max | 180max |
| | | -40 to +75°C 80max | 80max | 240max | 290max |
| | DRIFT[mV] | *3 20max | 20max | 48max | 60max |
| | START-UP TIME[ms] | 30max (Minimum input, I _o =100%) | | | |
| PROTECTION CIRCUIT | OUTPUT VOLTAGE SETTING[V] | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
| | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | |

| MODEL | MGFS3483R3 | MGFS34805 | MGFS34812 | MGFS34815 |
|-----------------------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 2.64 | 3.00 | 3.00 | 3.00 |
| DC OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 |
| | CURRENT[A] | 0.8 | 0.6 | 0.25 |

SPECIFICATIONS

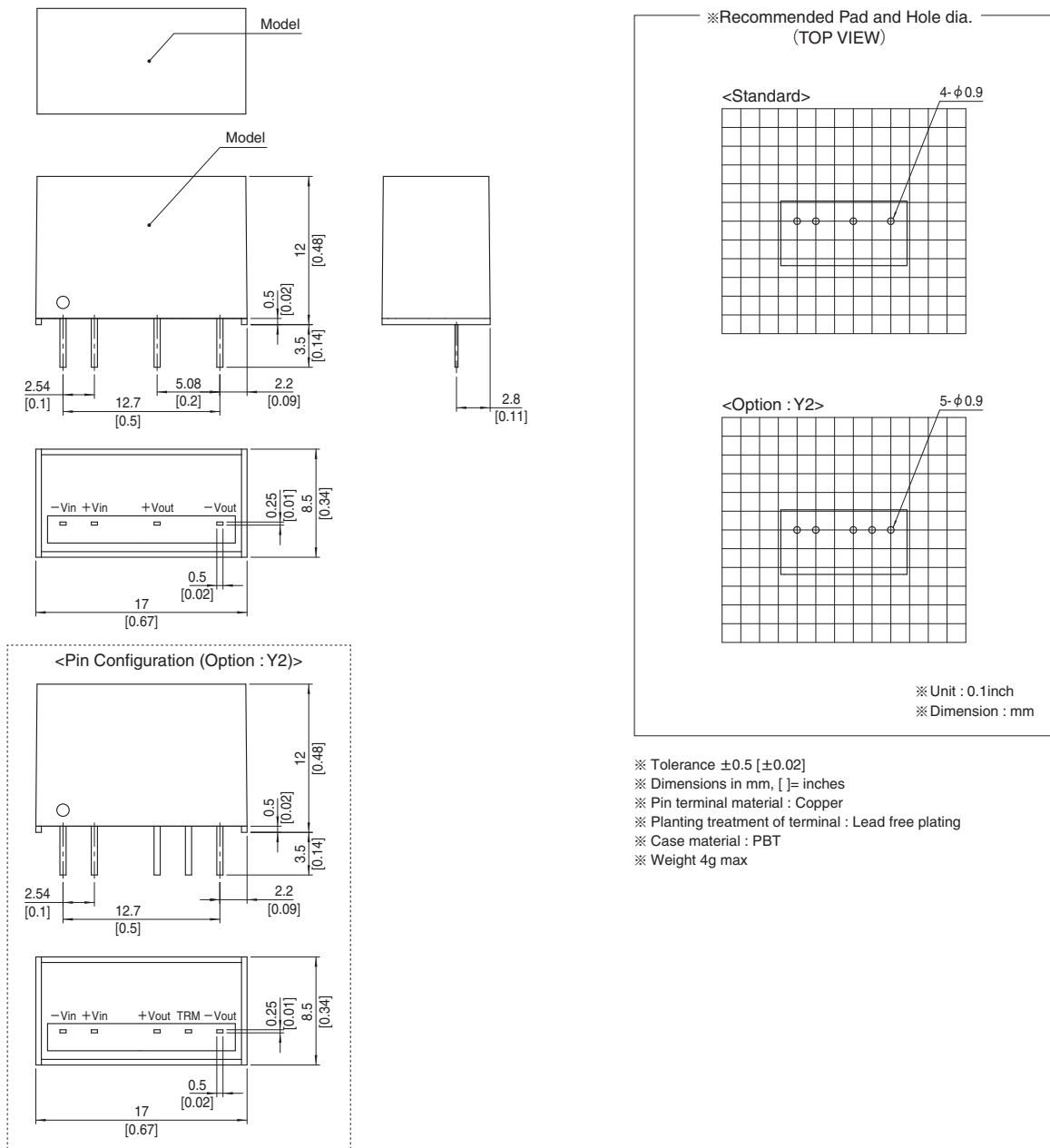
| | MODEL | MGFS3483R3 | MGFS34805 | MGFS34812 | MGFS34815 |
|--------------------|----------------------------|--|-------------|---------------|---------------|
| INPUT | VOLTAGE[V] | DC18 - 76 (Surge voltage 100V,100ms max) (Refer to the instruction manual for input voltage derating.) | | | |
| | CURRENT[A] | *1 0.072typ | 0.079typ | 0.076typ | 0.076typ |
| | EFFICIENCY[%] | *1 77typ | 80typ | 83typ | 83typ |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 |
| | CURRENT[A] | 0.8 | 0.6 | 0.25 | 0.2 |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max |
| | RIPPLE[mVp-p] | *2 120max | 120max | 150max | 150max |
| | RIPPLE NOISE[mVp-p] | *2 200max | 200max | 200max | 200max |
| | TEMPERATURE REGULATION[mV] | -20 to +75°C 50max | 50max | 150max | 180max |
| | | -40 to +75°C 80max | 80max | 240max | 290max |
| | DRIFT[mV] | *3 20max | 20max | 48max | 60max |
| | START-UP TIME[ms] | 30max (Minimum input, I _o =100%) | | | |
| PROTECTION CIRCUIT | OUTPUT VOLTAGE SETTING[V] | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 |
| | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | |

GENERAL SPECIFICATIONS

| | | |
|--------------------|---|--|
| ISOLATION | INPUT-OUTPUT | DC1,500V or AC1,000V 1minute, Cutoff current=10mA, DC500V 1,000MΩ min (20±15°C) |
| ENVIRONMENT | OPERATING TEMP.,HUMID.AND ALTITUDE | -40 to +85°C, 20 to 95%RH (Non condensing) (Required derating), 5,000m (16,400feet) max |
| | STORAGE TEMP.,HUMID.AND ALTITUDE | -40 to +100°C, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max |
| | VIBRATION | 10 - 55Hz 98.0m/s ² (10G), 3minute period, 60minutes each along X, Y and Z axis |
| | IMPACT | 490.3m/s ² (50G) 11ms, once each along X, Y and Z axis |
| SAFETY | AGENCY APPROVALS | UL60950-1, C-UL, EN60950-1 |
| OTHERS | CASE SIZE/WEIGHT | 17.0×12.0×8.5mm [0.67×0.48×0.34 inches] (W×H×D) / 4g max |
| | COOLING METHOD | Convection/Forced air |

- *1 Rated input 24V or 48V DC Io=100%
- *2 Ripple and ripple noise is measured by using test board with ceramic capacitor 1μF at 50mm from output pins.
- *3 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25°C.
- * Parallel operation with other model is not possible.
- * MGFW3xx12/MGFW3xx15 is available as single output, +24V/+30V

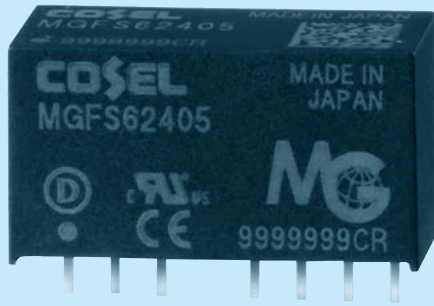
External view



MGFS6

MGF S 6 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
- Y2: Output voltage adjustable (+10%, -5%)

| MODEL | MGFS6243R3 | MGFS62405 | MGFS62412 | MGFS62415 |
|-----------------------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 5.28 | 6.0 | 6.0 | 6.0 |
| DC OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 |
| | CURRENT[A] | 1.6 | 1.2 | 0.5 |

SPECIFICATIONS

| | MODEL | MGFS6243R3 | MGFS62405 | MGFS62412 | MGFS62415 | |
|-------------------------------|--------------------------------|--|---------------|---------------|-----------|--------|
| INPUT | VOLTAGE[V] | DC9 - 36 (Surge voltage 50V,100ms max) | | | | |
| | CURRENT[A] | *1 0.28typ | 0.30typ | 0.29typ | 0.29typ | |
| | EFFICIENCY[%] | *1 80typ | 84typ | 88typ | 88typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 1.6 | 1.2 | 0.5 | 0.4 | |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] | Io=30% - | 75max | 75max | 100max | 100max |
| | | Io=0 - 30% | *2 225max | 225max | 300max | 300max |
| | RIPPLE NOISE[mVp-p] | Io=30% - | 120max | 120max | 150max | 150max |
| | | Io=0 - 30% | *2 300max | 300max | 400max | 400max |
| | TEMPERATURE REGULATION[mV] | -20 to +65°C | 50max | 50max | 150max | 180max |
| | | -40 to +65°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] | *3 20max | 20max | 48max | 60max | |
| START-UP TIME[ms] | 30max (Minimum input, Io=100%) | | | | | |
| OUTPUT VOLTAGE SETTING[V] | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L : ON, H : OFF) | | | | |

| MODEL | MGFS6483R3 | MGFS64805 | MGFS64812 | MGFS64815 |
|-----------------------|------------|-----------|-----------|-----------|
| MAX OUTPUT WATTAGE[W] | 5.28 | 6.0 | 6.0 | 6.0 |
| DC OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 |
| | CURRENT[A] | 1.6 | 1.2 | 0.5 |

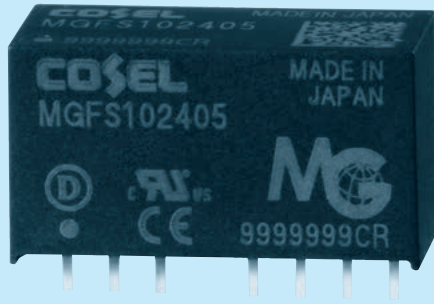
SPECIFICATIONS

| | MODEL | MGFS6483R3 | MGFS64805 | MGFS64812 | MGFS64815 | |
|-------------------------------|--------------------------------|--|---------------|---------------|-----------|--------|
| INPUT | VOLTAGE[V] | DC18 - 76 (Surge voltage 100V, 100ms max) | | | | |
| | CURRENT[A] | *1 0.14typ | 0.15typ | 0.15typ | 0.15typ | |
| | EFFICIENCY[%] | *1 80typ | 84typ | 88typ | 88typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 1.6 | 1.2 | 0.5 | 0.4 | |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] | Io=30% - | 75max | 75max | 100max | 100max |
| | | Io=0 - 30% | *2 225max | 225max | 300max | 300max |
| | RIPPLE NOISE[mVp-p] | Io=30% - | 120max | 120max | 150max | 150max |
| | | Io=0 - 30% | *2 300max | 300max | 400max | 400max |
| | TEMPERATURE REGULATION[mV] | -20 to +65°C | 50max | 50max | 150max | 180max |
| | | -40 to +65°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] | *3 20max | 20max | 48max | 60max | |
| START-UP TIME[ms] | 30max (Minimum input, Io=100%) | | | | | |
| OUTPUT VOLTAGE SETTING[V] | 3.21 - 3.42 | 4.90 - 5.21 | 11.64 - 12.36 | 14.55 - 15.45 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L : ON, H : OFF) | | | | |

MGFS10

MGF S 10 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
- Y2: Output voltage adjustable (+10%, -5%)

| MODEL | MGFS10243R3 | MGFS102405 | MGFS102412 | MGFS102415 |
|-----------------------|-------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 8.58 | 10.0 | 10.8 | 10.5 |
| DC OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 |
| | CURRENT[A] | 2.6 | 2.0 | 0.9 |

SPECIFICATIONS

| | MODEL | MGFS10243R3 | MGFS102405 | MGFS102412 | MGFS102415 | |
|-------------------------------|--------------------------------|--|-------------|------------|---------------|--------|
| INPUT | VOLTAGE[V] | DC9 - 36 (Surge voltage 50V,100ms max) (Refer to the instruction manual for input voltage derating.) | | | | |
| | CURRENT[A] | *1 0.42typ | 0.48typ | 0.51typ | 0.50typ | |
| | EFFICIENCY[%] | *1 86typ | 88typ | 89typ | 89typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 2.6 | 2.0 | 0.9 | 0.7 | |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] | Io=30% - | 75max | 75max | 100max | 100max |
| | | Io=0 - 30% | 225max | 225max | 300max | 300max |
| | RIPPLE NOISE[mVp-p] | Io=30% - | 120max | 120max | 150max | 150max |
| | | Io=0 - 30% | 300max | 300max | 400max | 400max |
| | TEMPERATURE REGULATION[mV] | -20 to +55°C | 50max | 50max | 150max | 180max |
| | | -40 to +55°C | 80max | 80max | 240max | 290max |
| DRIFT[mV] | *3 20max | 20max | 48max | 60max | | |
| START-UP TIME[ms] | 30max (Minimum input, Io=100%) | | | | | |
| OUTPUT VOLTAGE SETTING[V] | 3.21 - 3.42 | | 4.90 - 5.21 | | 11.64 - 12.36 | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L : ON, H : OFF) | | | | |

| MODEL | MGFS10483R3 | MGFS104805 | MGFS104812 | MGFS104815 |
|-----------------------|-------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 8.58 | 10.0 | 10.8 | 10.5 |
| DC OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 |
| | CURRENT[A] | 2.6 | 2.0 | 0.9 |

SPECIFICATIONS

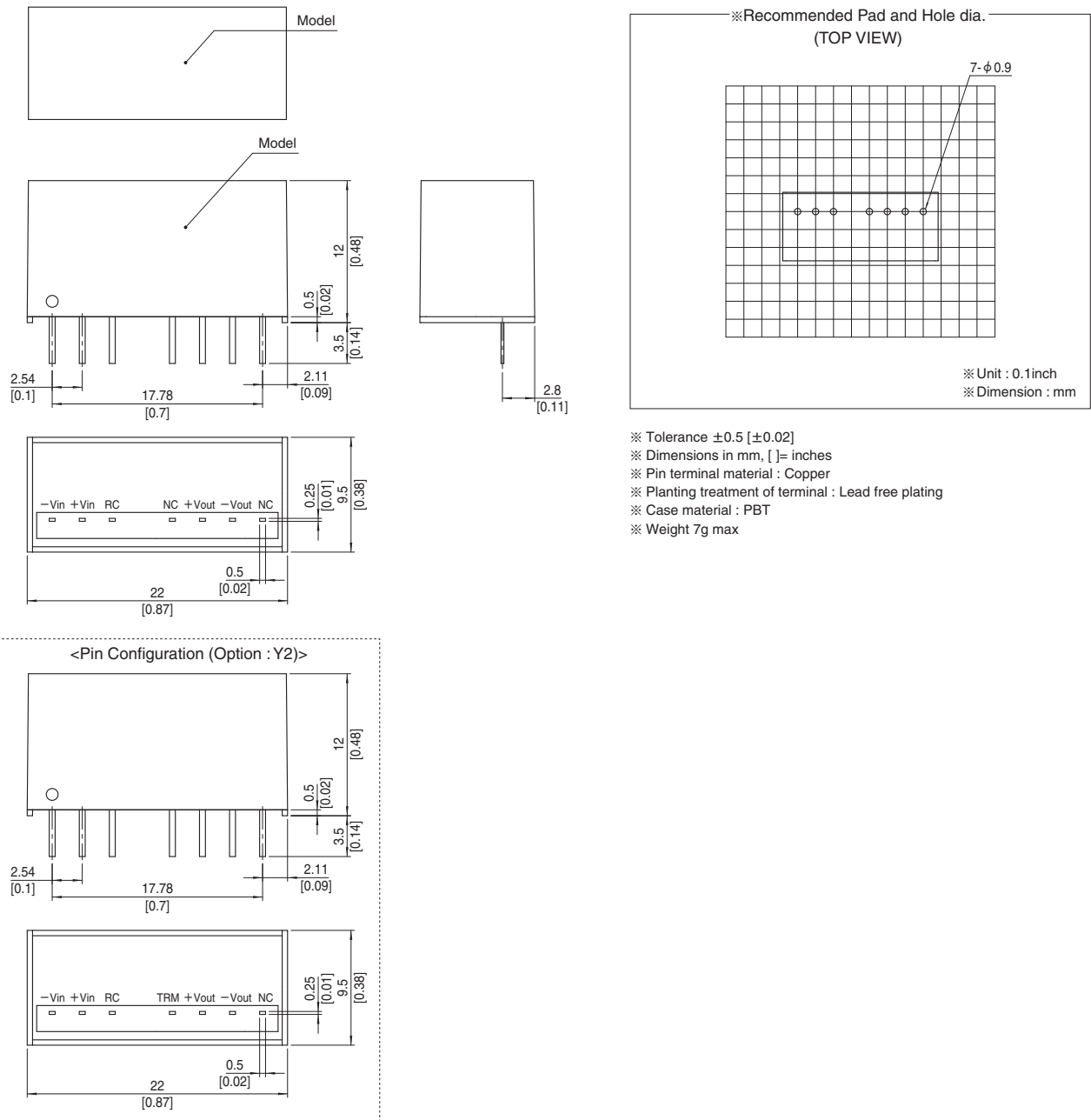
| | MODEL | MGFS10483R3 | MGFS104805 | MGFS104812 | MGFS104815 | |
|-------------------------------|--------------------------------|--|-------------|------------|---------------|--------|
| INPUT | VOLTAGE[V] | DC18 - 76 (Surge voltage 100V,100ms max) (Refer to the instruction manual for input voltage derating.) | | | | |
| | CURRENT[A] | *1 0.21typ | 0.24typ | 0.26typ | 0.25typ | |
| | EFFICIENCY[%] | *1 86typ | 88typ | 89typ | 89typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 2.6 | 2.0 | 0.9 | 0.7 | |
| | LINE REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] | Io=30% - | 75max | 75max | 100max | 100max |
| | | Io=0 - 30% | 225max | 225max | 300max | 300max |
| | RIPPLE NOISE[mVp-p] | Io=30% - | 120max | 120max | 150max | 150max |
| | | Io=0 - 30% | 300max | 300max | 400max | 400max |
| | TEMPERATURE REGULATION[mV] | -20 to +55°C | 50max | 50max | 150max | 180max |
| | | -40 to +55°C | 80max | 80max | 240max | 290max |
| DRIFT[mV] | *3 20max | 20max | 48max | 60max | | |
| START-UP TIME[ms] | 30max (Minimum input, Io=100%) | | | | | |
| OUTPUT VOLTAGE SETTING[V] | 3.21 - 3.42 | | 4.90 - 5.21 | | 11.64 - 12.36 | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L : ON, H : OFF) | | | | |

GENERAL SPECIFICATIONS

| | | |
|--------------------|---|--|
| ISOLATION | INPUT-OUTPUT | DC1,500V or AC1,000V 1minute, Cutoff current=10mA, DC500V 1,000MΩ min (20±15°C) |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +85°C, 20 to 95%RH (Non condensing) (Required derating), 5,000m (16,400feet) max |
| | STORAGE TEMP., HUMID. AND ALTITUDE | -40 to +100°C, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max |
| | VIBRATION | 10 - 55Hz 98.0m/s ² (10G), 3minute period, 60minutes each along X, Y and Z axis |
| | IMPACT | 490.3m/s ² (50G) 11ms, once each along X, Y and Z axis |
| SAFETY | AGENCY APPROVALS | UL60950-1, C-UL, EN60950-1 |
| OTHERS | CASE SIZE/WEIGHT | 22.0×12.0×9.5mm [0.87×0.48×0.38 inches] (W×H×D) / 7g max |
| | COOLING METHOD | Convection/Forced air |

- *1 Rated input 24V or 48V DC I_o=100%
- *2 Ripple and ripple noise is measured by using test board with ceramic capacitor 1μF at 50mm from output pins.
- *3 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25°C.
- * Parallel operation with other model is not possible.
- * MGFW10xx12/MGFW10xx15 is available as single output, +24V/+30V

External view



MGFS15

MGF 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 | MGFS15243R3 | MGFS152405 | MGFS152412 | MGFS152415 |
|-----------------------|---------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 13.2 | 15 | 15.6 | 15 |
| DC OUTPUT | VOLTAGE[V] *1 | 3.3 | 5 | 12 |
| | CURRENT[A] | 4 | 3 | 1.3 |

SPECIFICATIONS

| | MODEL | MGFS15243R3 | MGFS152405 | MGFS152412 | MGFS152415 | |
|---------------------------------|---|--|-----------------|-----------------|------------|--------|
| INPUT | VOLTAGE[V] | DC9 - 36 | | | | |
| | CURRENT[A] *2 | 0.63typ | 0.71typ | 0.73typ | 0.70typ | |
| | EFFICIENCY[%] *2 | 87typ | 88typ | 89typ | 89typ | |
| 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 | 100max |
| | | -40 to -20°C | 100max | 100max | 120max | 120max |
| | RIPPLE NOISE[mVp-p] *3 | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | -40 to -20°C | 150max | 150max | 150max | 150max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 50max | 150max | 180max |
| | | -40 to +60°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] *4 | 20max | 20max | 48max | 60max | |
| 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 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L:ON, H:OFF) | | | | |

| MODEL | MGFS15483R3 | MGFS154805 | MGFS154812 | MGFS154815 |
|-----------------------|---------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 13.2 | 15 | 15.6 | 15 |
| DC OUTPUT | VOLTAGE[V] *1 | 3.3 | 5 | 12 |
| | CURRENT[A] | 4 | 3 | 1.3 |

SPECIFICATIONS

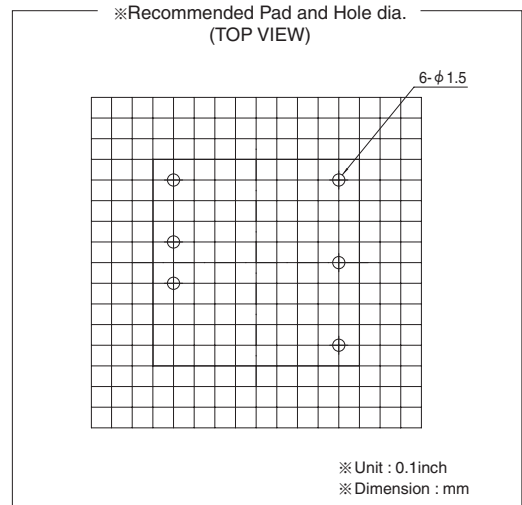
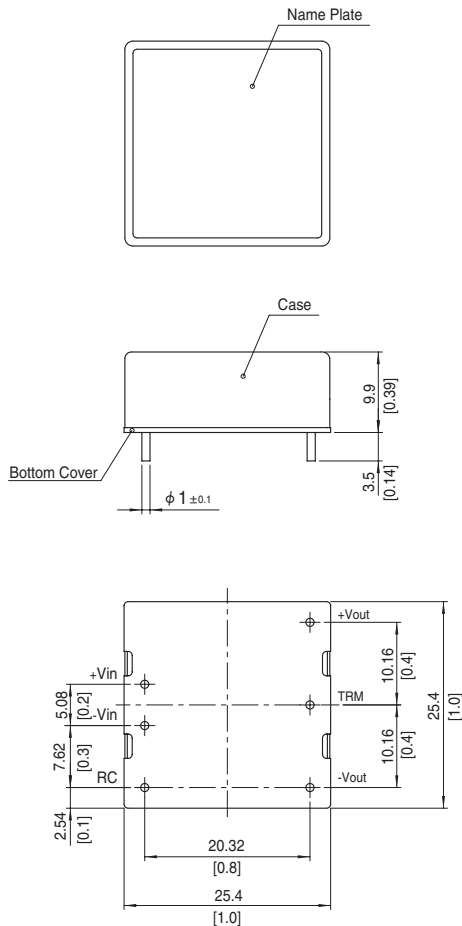
| | MODEL | MGFS15483R3 | MGFS154805 | MGFS154812 | MGFS154815 | |
|---------------------------------|---|--|-----------------|-----------------|------------|--------|
| INPUT | VOLTAGE[V] | DC18 - 76 | | | | |
| | CURRENT[A] *2 | 0.32typ | 0.36typ | 0.37typ | 0.35typ | |
| | EFFICIENCY[%] *2 | 87typ | 88typ | 88typ | 89typ | |
| 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 | 100max |
| | | -40 to -20°C | 100max | 100max | 120max | 120max |
| | RIPPLE NOISE[mVp-p] *3 | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | -40 to -20°C | 150max | 150max | 150max | 150max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 50max | 150max | 180max |
| | | -40 to +60°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] *4 | 20max | 20max | 48max | 60max | |
| 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 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | 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°C) |
| | INPUT-CASE | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) |
| | OUTPUT-CASE | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +85°C, 20 to 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max |
| | STORAGE TEMP., HUMID. AND ALTITUDE | -40 to +100°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 |
| | IMPACT | 490.3m/s ² (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 MGFW15xx05/MGFW15xx12/MGFW15xx15 is available as single output, +10V/+24V/+30V
- *2 Rated input 12V, 24V or 48V DC Io=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°C.
- *5 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C.
- * Parallel operation with other model is not possible.

External view



- ※ 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

MGFS30

MGF 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 | MGFS30243R3 | MGFS302405 | MGFS302412 | MGFS302415 |
|-----------------------|---------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 24.75 | 30 | 30 | 30 |
| DC OUTPUT | VOLTAGE[V] *1 | 3.3 | 5 | 12 |
| | CURRENT[A] | 7.5 | 6 | 2.5 |

SPECIFICATIONS

| | MODEL | MGFS30243R3 | MGFS302405 | MGFS302412 | MGFS302415 | |
|---------------------------------|---|--|-----------------|-----------------|------------|--------|
| INPUT | VOLTAGE[V] | DC9 - 36 | | | | |
| | CURRENT[A] *2 | 1.16typ | 1.39typ | 1.40typ | 1.40typ | |
| | EFFICIENCY[%] *2 | 89typ | 90typ | 89typ | 89typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 7.5 | 6 | 2.5 | 2 | |
| | LINE REGULATION[mV] | 13.2max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 13.2max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | *3 -40 to -20°C | 100max | 100max | 120max | 120max |
| | RIPPLE NOISE[mVp-p] | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | *3 -40 to -20°C | 150max | 150max | 150max | 150max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 50max | 150max | 180max |
| | | -40 to +60°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] *4 | 20max | 20max | 48max | 60max | |
| 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 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | OVERVOLTAGE PROTECTION | Works over 120 to 160% of rating | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L:ON, H:OFF) | | | | |

| MODEL | MGFS30483R3 | MGFS304805 | MGFS304812 | MGFS304815 |
|-----------------------|---------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 24.75 | 30 | 30 | 30 |
| DC OUTPUT | VOLTAGE[V] *1 | 3.3 | 5 | 12 |
| | CURRENT[A] | 7.5 | 6 | 2.5 |

SPECIFICATIONS

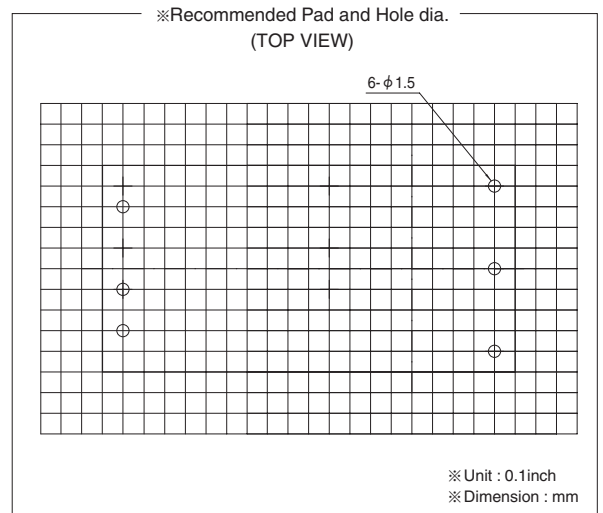
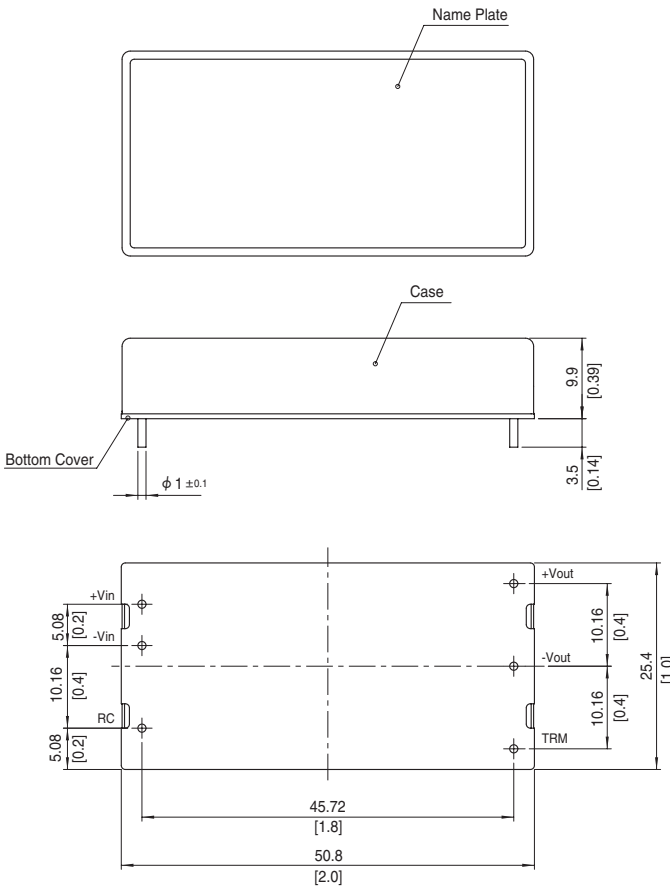
| | MODEL | MGFS30483R3 | MGFS304805 | MGFS304812 | MGFS304815 | |
|---------------------------------|---|--|-----------------|-----------------|------------|--------|
| INPUT | VOLTAGE[V] | DC18 - 76 | | | | |
| | CURRENT[A] *2 | 0.58typ | 0.70typ | 0.70typ | 0.70typ | |
| | EFFICIENCY[%] *2 | 89typ | 90typ | 89typ | 89typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 7.5 | 6 | 2.5 | 2 | |
| | LINE REGULATION[mV] | 13.2max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 13.2max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | *3 -40 to -20°C | 100max | 100max | 120max | 120max |
| | RIPPLE NOISE[mVp-p] | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | *3 -40 to -20°C | 150max | 150max | 150max | 150max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 50max | 150max | 180max |
| | | -40 to +60°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] *4 | 20max | 20max | 48max | 60max | |
| 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 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | OVERVOLTAGE PROTECTION | 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 1,000MΩ min (20±15°C) |
| | INPUT-CASE | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) |
| | OUTPUT-CASE | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +85°C, 20 to 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max |
| | STORAGE TEMP., HUMID. AND ALTITUDE | -40 to +100°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 |
| | IMPACT | 490.3m/s ² (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 50.8mm [1 X 0.39 X 2 inches] (W X H X D) / 40g max |
| | COOLING METHOD | Convection/Forced air |

- *1 MGF30xx05/MGF30xx12/MGF30xx15 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 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°C.
- *5 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C.
- * Parallel operation with other model is not possible.

External view



- ※ 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 40g max

MGFS40

MGF S 40 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 | MGFS40053R3 | MGFS400505 | MGFS400512 | MGFS400515 | MGFS40243R3 | MGFS402405 | MGFS402412 | MGFS402415 |
|-----------------------|---------------|------------|------------|------------|-------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 26.4 | 30 | 30 | 30 | 33 | 40 | 40.8 | 40.5 |
| DC OUTPUT | VOLTAGE[V] *1 | 3.3 | 5 | 12 | 15 | 3.3 | 5 | 12 |
| | CURRENT[A] | 8 | 6 | 2.5 | 2 | 10 | 8 | 3.4 |

SPECIFICATIONS

| | MODEL | MGFS40053R3 | MGFS400505 | MGFS400512 | MGFS400515 | MGFS40243R3 | MGFS402405 | MGFS402412 | MGFS402415 | |
|---------------------------------|---|--|-----------------|-----------------|---------------|---|-----------------|-----------------|------------|--------|
| INPUT | VOLTAGE[V] | DC4.5 - 13 (Surge Voltage 15V, 100ms max) | | | | DC9 - 36 (Surge Voltage 50V, 100ms max) | | | | |
| | CURRENT[A] *2 | 6.21typ | 6.90typ | 6.90typ | 6.82typ | 1.54typ | 1.83typ | 1.85typ | 1.83typ | |
| | EFFICIENCY[%] *2 | 85typ | 87typ | 87typ | 88typ | 89typ | 91typ | 92typ | 92typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 8 | 6 | 2.5 | 2 | 10 | 8 | 3.4 | 2.7 | |
| | 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 | 100max |
| | | -40 to -20°C | 100max | 100max | 120max | 120max | 100max | 100max | 120max | 120max |
| | RIPPLE NOISE[mVp-p] *3 | -20 to +60°C | 75max | 75max | 100max | 100max | 75max | 75max | 100max | 100max |
| | | -40 to -20°C | 150max | 150max | 150max | 150max | 150max | 150max | 150max | 150max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 50max | 150max | 180max | 50max | 50max | 150max | 180max |
| | | -40 to +60°C | 80max | 80max | 240max | 290max | 80max | 80max | 240max | 290max |
| DRIFT[mV] *4 | 20max | 20max | 48max | 60max | 20max | 20max | 48max | 60max | | |
| START-UP TIME[ms] | 30max (Minimum input, Rated load) | | | | | | | | | |
| 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 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | | | | | |
| | OVERVOLTAGE PROTECTION | Work over 115 to 140% of rating | | | | | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L:ON, H:OFF) | | | | | | | | |

| MODEL | MGFS40483R3 | MGFS404805 | MGFS404812 | MGFS404815 |
|-----------------------|---------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 33 | 40 | 40.8 | 40.5 |
| DC OUTPUT | VOLTAGE[V] *1 | 3.3 | 5 | 12 |
| | CURRENT[A] | 10 | 8 | 3.4 |

SPECIFICATIONS

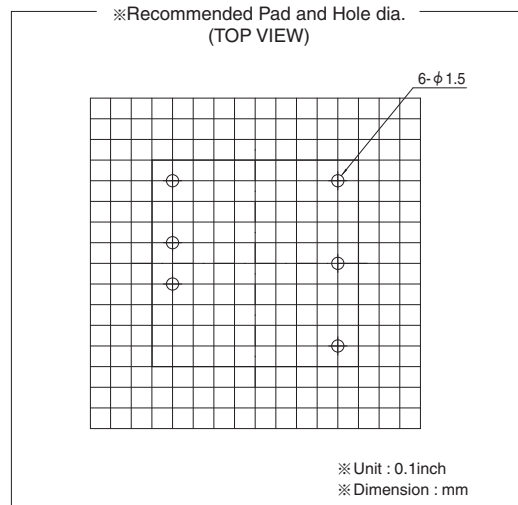
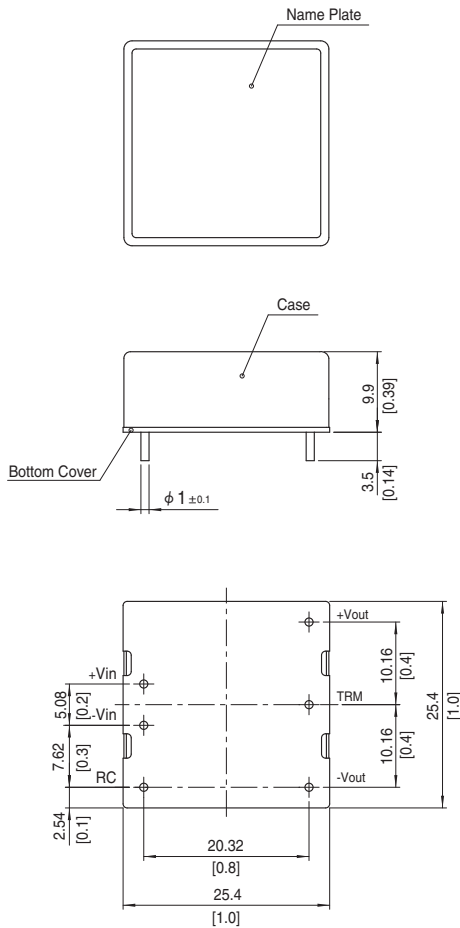
| | MODEL | MGFS40483R3 | MGFS404805 | MGFS404812 | MGFS404815 | |
|---------------------------------|---|--|-----------------|-----------------|------------|--------|
| INPUT | VOLTAGE[V] | DC18 - 76 (Surge Voltage 100V, 100ms max) | | | | |
| | CURRENT[A] *2 | 0.77typ | 0.92typ | 0.92typ | 0.92typ | |
| | EFFICIENCY[%] *2 | 89typ | 91typ | 92typ | 92typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 10 | 8 | 3.4 | 2.7 | |
| | 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 | 100max |
| | | -40 to -20°C | 100max | 100max | 120max | 120max |
| | RIPPLE NOISE[mVp-p] *3 | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | -40 to -20°C | 150max | 150max | 150max | 150max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 50max | 150max | 180max |
| | | -40 to +60°C | 80max | 80max | 240max | 290max |
| DRIFT[mV] *4 | 20max | 20max | 48max | 60max | | |
| START-UP TIME[ms] | 30max (Minimum input, Rated load) | | | | | |
| 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 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | OVERVOLTAGE PROTECTION | Work over 115 to 140% of rating | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L:ON, H:OFF) | | | | |

GENERAL SPECIFICATIONS

| | | |
|-------------|------------------------------------|--|
| ISOLATION | INPUT-OUTPUT | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ 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), 5,000m (16,400feet) 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 ² (10G), 3minutes period, 60minutes each along X, Y and Z axis |
| | IMPACT | 490.3m/s ² (50G), 11ms, once each along X, Y and Z axis |
| SAFETY | AGENCY APPROVALS | UL62368-1, C-UL(CSA62368-1), EN62368-1 |
| OTHERS | CASE SIZE/WEIGHT | 25.4 X 9.9 X 25.4mm (W X H X D) / 30g max |
| | COOLING METHOD | Convection/Forced air |

- *1 MGF40xx12/MGF40xx15 is available as single output +24V/+30V
- *2 Rated input voltage (DC5V, DC24V, DC48V) Io=100%
- *3 Ripple and Ripple Noise is measured by using test board with ceramic capacitor 22μF and Recommended Capacitance at 50mm from output pins. (20MHz Oscilloscope)
- *4 Drift is the DC output accuracy for eight hour period after a half-hour warm-up at 25℃
- *5 Rated input voltage (DC5V, DC24V, DC48V), rated output wattage, ambient temperature at 25℃
- * Parallel operation with other model is not possible.

External view



- ※ 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 30g max

MGFS80

MGF S 80 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 | MGFS80243R3 | MGFS802405 | MGFS802412 | MGFS802415 |
|-----------------------|---------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 59.4 | 80 | 80.4 | 81 |
| DC OUTPUT | VOLTAGE[V] *1 | 3.3 | 5 | 12 |
| | CURRENT[A] | 18 | 16 | 6.7 |
| | | | | 5.4 |

SPECIFICATIONS

| | MODEL | MGFS80243R3 | MGFS802405 | MGFS802412 | MGFS802415 | |
|---------------------------------|---|--|-----------------|-----------------|------------|--------|
| INPUT | VOLTAGE[V] | DC9 - 36 (Surge Voltage 50V, 100ms max) | | | | |
| | CURRENT[A] *2 | 2.69typ | 3.60typ | 3.56typ | 3.59typ | |
| | EFFICIENCY[%] *2 | 92typ | 93typ | 94typ | 94typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 18 | 16 | 6.7 | 5.4 | |
| | LINE REGULATION[mV] | 13.2max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] *3 | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | -40 to -20°C | 100max | 100max | 120max | 120max |
| | | Io=0 to 10% | 200max | 200max | 240max | 240max |
| | RIPPLE NOISE[mVp-p] *3 | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | -40 to -20°C | 150max | 150max | 150max | 150max |
| | | Io=0 to 10% | 250max | 250max | 270max | 270max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 50max | 150max | 180max |
| | | -40 to +60°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] *4 | 20max | 20max | 48max | 60max | |
| START-UP TIME[ms] | 30max (Minimum input, Rated load) | | | | | |
| 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 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | OVERVOLTAGE PROTECTION | Work over 115 to 140% of rating | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L:ON, H:OFF) | | | | |

| MODEL | MGFS80483R3 | MGFS804805 | MGFS804812 | MGFS804815 |
|-----------------------|---------------|------------|------------|------------|
| MAX OUTPUT WATTAGE[W] | 59.4 | 80 | 80.4 | 81 |
| DC OUTPUT | VOLTAGE[V] *1 | 3.3 | 5 | 12 |
| | CURRENT[A] | 18 | 16 | 6.7 |
| | | | | 5.4 |

SPECIFICATIONS

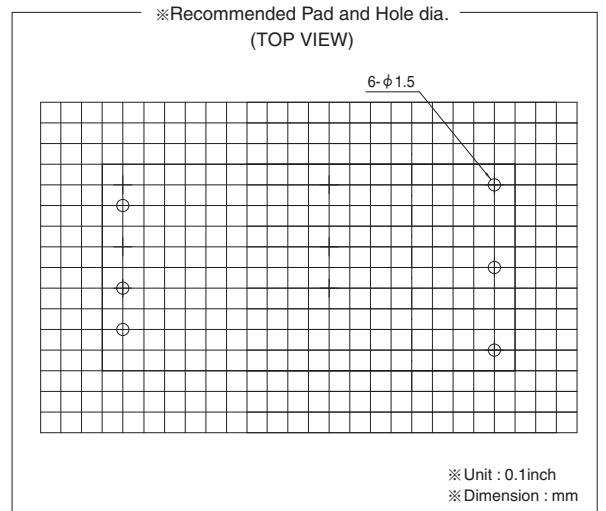
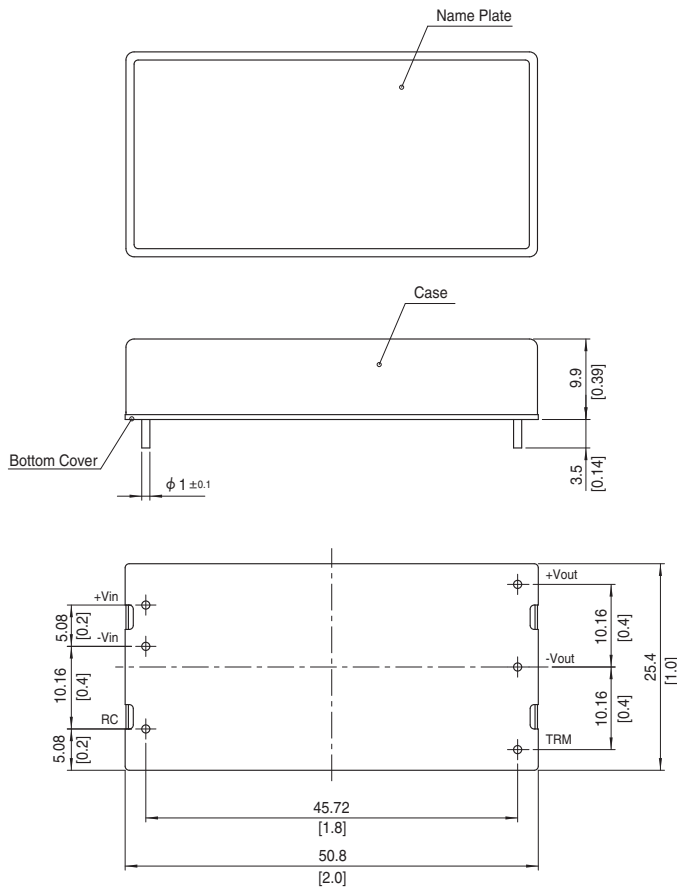
| | MODEL | MGFS80483R3 | MGFS804805 | MGFS804812 | MGFS804815 | |
|---------------------------------|---|--|-----------------|-----------------|------------|--------|
| INPUT | VOLTAGE[V] | DC18 - 76 (Surge Voltage 100V, 100ms max) | | | | |
| | CURRENT[A] *2 | 1.35typ | 1.80typ | 1.78typ | 1.80typ | |
| | EFFICIENCY[%] *2 | 92typ | 93typ | 94typ | 94typ | |
| OUTPUT | VOLTAGE[V] | 3.3 | 5 | 12 | 15 | |
| | CURRENT[A] | 18 | 16 | 6.7 | 5.4 | |
| | LINE REGULATION[mV] | 13.2max | 20max | 48max | 60max | |
| | LOAD REGULATION[mV] | 20max | 20max | 48max | 60max | |
| | RIPPLE[mVp-p] *3 | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | -40 to -20°C | 100max | 100max | 120max | 120max |
| | | Io=0 to 10% | 200max | 200max | 240max | 240max |
| | RIPPLE NOISE[mVp-p] *3 | -20 to +60°C | 75max | 75max | 100max | 100max |
| | | -40 to -20°C | 150max | 150max | 150max | 150max |
| | | Io=0 to 10% | 250max | 250max | 270max | 270max |
| | TEMPERATURE REGULATION[mV] | -20 to +60°C | 50max | 50max | 150max | 180max |
| | | -40 to +60°C | 80max | 80max | 240max | 290max |
| | DRIFT[mV] *4 | 20max | 20max | 48max | 60max | |
| START-UP TIME[ms] | 30max (Minimum input, Rated load) | | | | | |
| 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 | | |
| PROTECTION CIRCUIT AND OTHERS | OVERCURRENT PROTECTION | Works over 105% of rating and recovers automatically | | | | |
| | OVERVOLTAGE PROTECTION | Work over 115 to 140% of rating | | | | |
| | REMOTE ON/OFF | Provided (Negative logic L:ON, H:OFF) | | | | |

GENERAL SPECIFICATIONS

| | | |
|-------------|--------------------------------------|--|
| ISOLATION | INPUT-OUTPUT | DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) |
| | INPUT-CASE | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) |
| | OUTPUT-CASE | DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C) |
| ENVIRONMENT | OPERATING TEMP., HUMID. AND ALTITUDE | -40 to +85°C, 20 to 95%RH (Non condensing) (Required Derating), 5,000m (16,400feet) max |
| | STORAGE TEMP., HUMID. AND ALTITUDE | -40 to +100°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 |
| | IMPACT | 490.3m/s ² (50G), 11ms, once each along X, Y and Z axis |
| SAFETY | AGENCY APPROVALS | UL62368-1, C-UL(CSA62368-1), EN62368-1 |
| OTHERS | CASE SIZE/WEIGHT | 25.4 X 9.9 X 50.8mm (W X H X D) / 50g max |
| | COOLING METHOD | Convection/Forced air |

- *1 MGF80xx12/MGF80xx15 is available as single output +24V/+30V
- *2 Rated input voltage (DC24V, DC48V) Io=100%
- *3 Ripple and Ripple Noise is measured by using test board with ceramic capacitor 22μF and Recommended Capacitance at 50mm from output pins. (20MHz Oscilloscope)
- *4 Drift is the DC output accuracy for eight hour period after a half-hour warm-up at 25°C
- *5 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C
- * Parallel operation with other model is not possible.

External view



- ※ 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 50g max





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