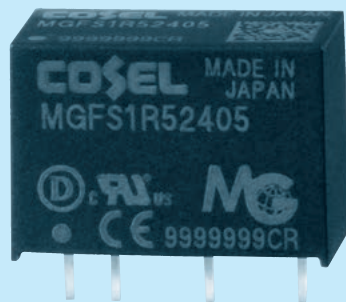


MGFS1R5**MGF S 1R5 24 05 -□**

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
		-40 to +85°C	80max	80max	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

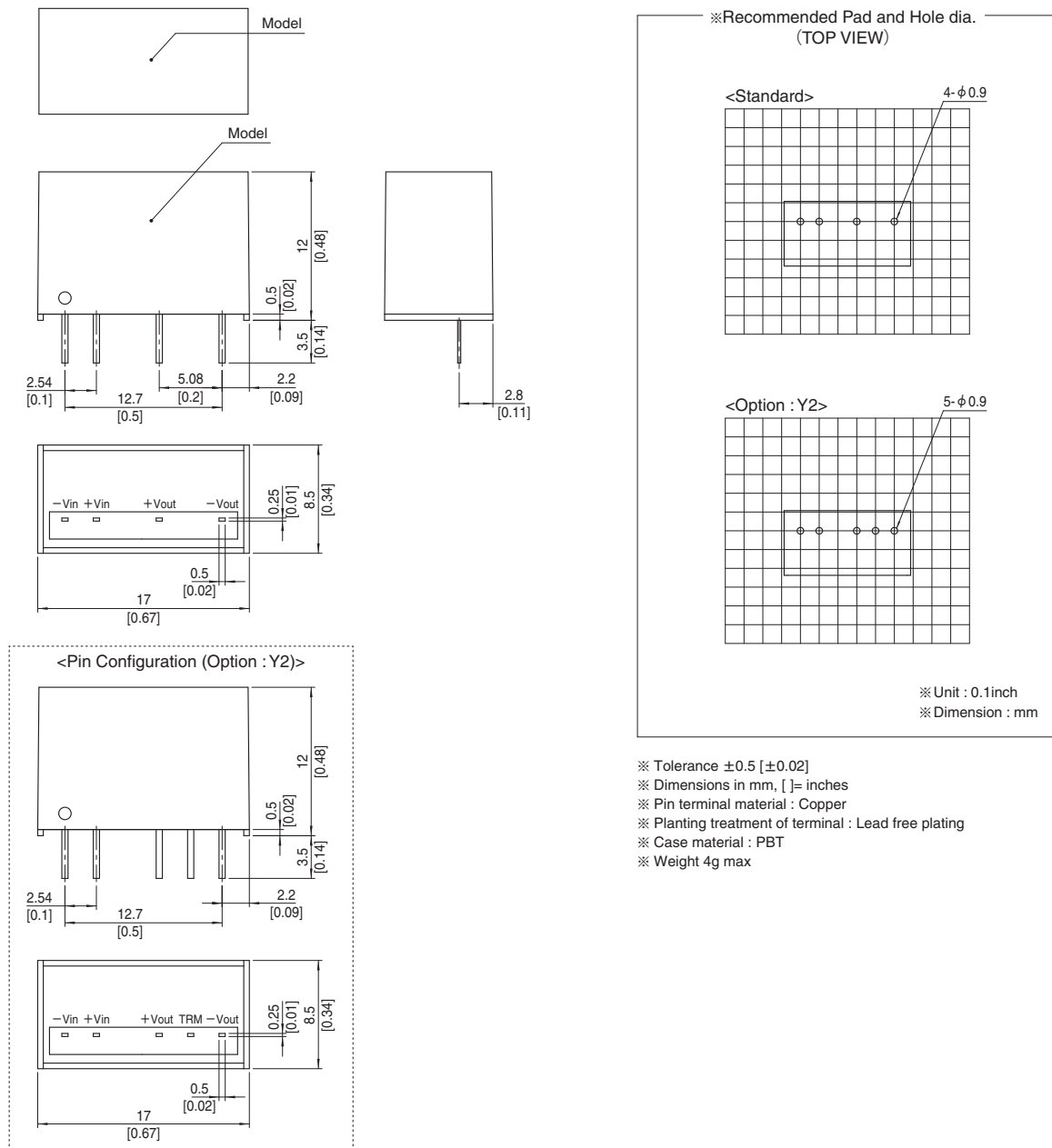
	MODEL	MGFS1R5483R3	MGFS1R54805	MGFS1R54812	MGFS1R54815
INPUT	VOLTAGE[V]	DC18 - 76(Surge voltage 100V,100ms max)			
	CURRENT[A]	*1 0.037typ	0.040typ	0.040typ	0.039typ
	EFFICIENCY[%]	*1 76typ	79typ	82typ	81typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	0.4	0.3	0.13	0.1
	LINE REGULATION[mV]	20max	20max	48max	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
		-40 to +85°C	80max	80max	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 1,000M Ω min (20 $\pm$ 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 $\times$ 12.0 $\times$ 8.5mm [0.67 $\times$ 0.48 $\times$ 0.34 inches] (W $\times$ H $\times$ 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 1 μ F 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.
- * MGFW1R5xx12/MGFW1R5xx15 is available as single output, +24V/+30V

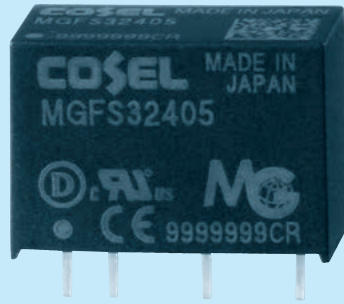
External view



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	-20 to +75°C	50max	150max	180max
	REGULATION[mV]	-40 to +75°C	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

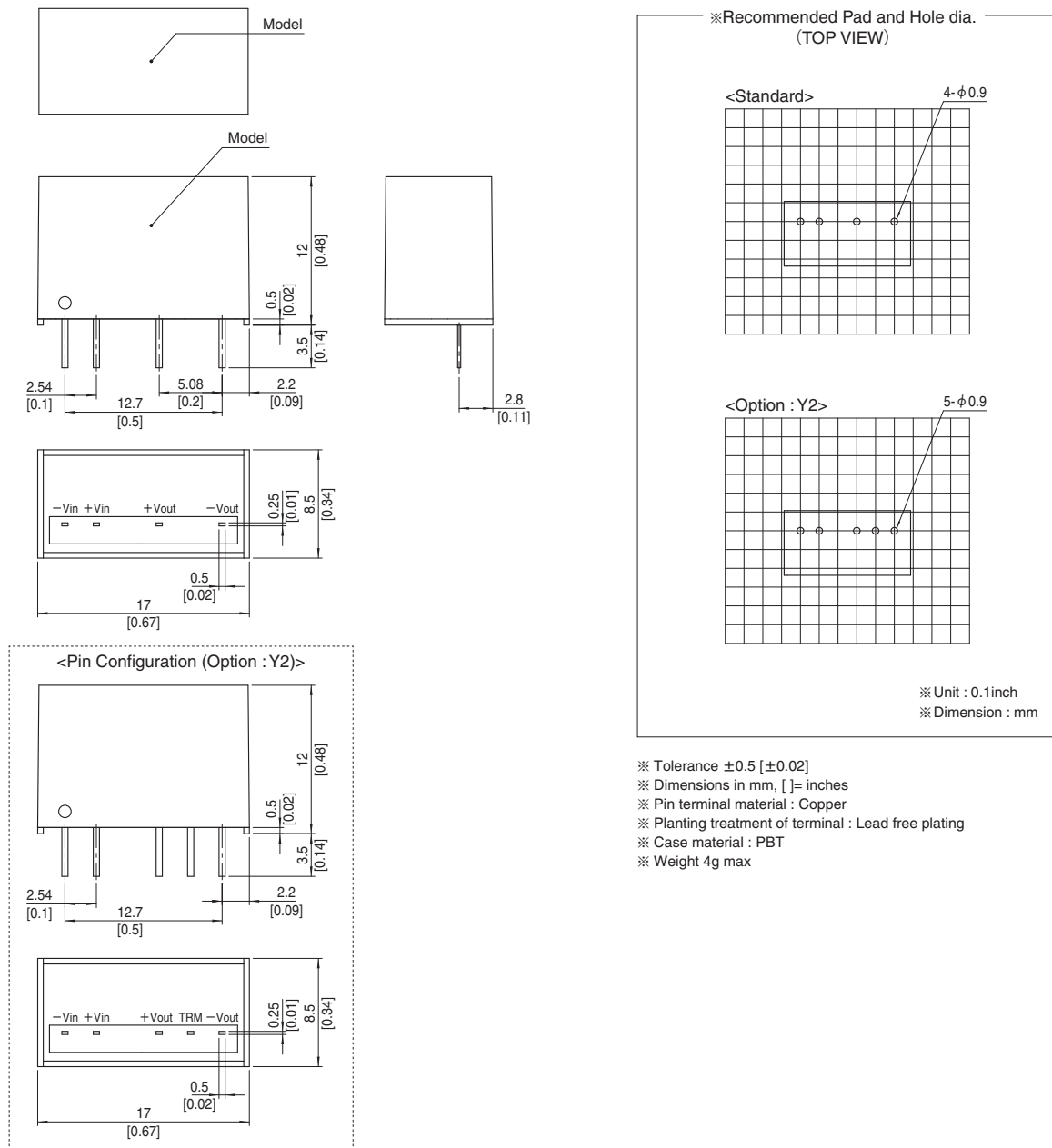
	MODEL	MGFS3483R3	MGFS34805	MGFS34812	MGFS34815
INPUT	VOLTAGE[V]	DC18 - 76 (Surge voltage 100V,100ms max) (Refer to the instruction manual for input voltage derating.)			
	CURRENT[A]	*1 0.072typ	0.079typ	0.076typ	0.076typ
	EFFICIENCY[%]	*1 77typ	80typ	83typ	83typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	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	-20 to +75°C	50max	150max	180max
	REGULATION[mV]	-40 to +75°C	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 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.
- * MGF3xx12/MGF3xx15 is available as single output, +24V/+30V

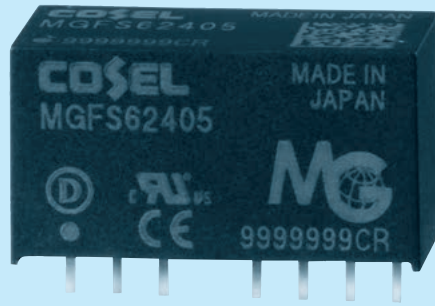
External view



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]	lo=30% - 75max	75max	100max	100max
		*2 lo=0 - 30% 225max	225max	300max	300max
	RIPPLE NOISE[mVp-p]	lo=30% - 120max	120max	150max	150max
		*2 lo=0 - 30% 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, lo=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

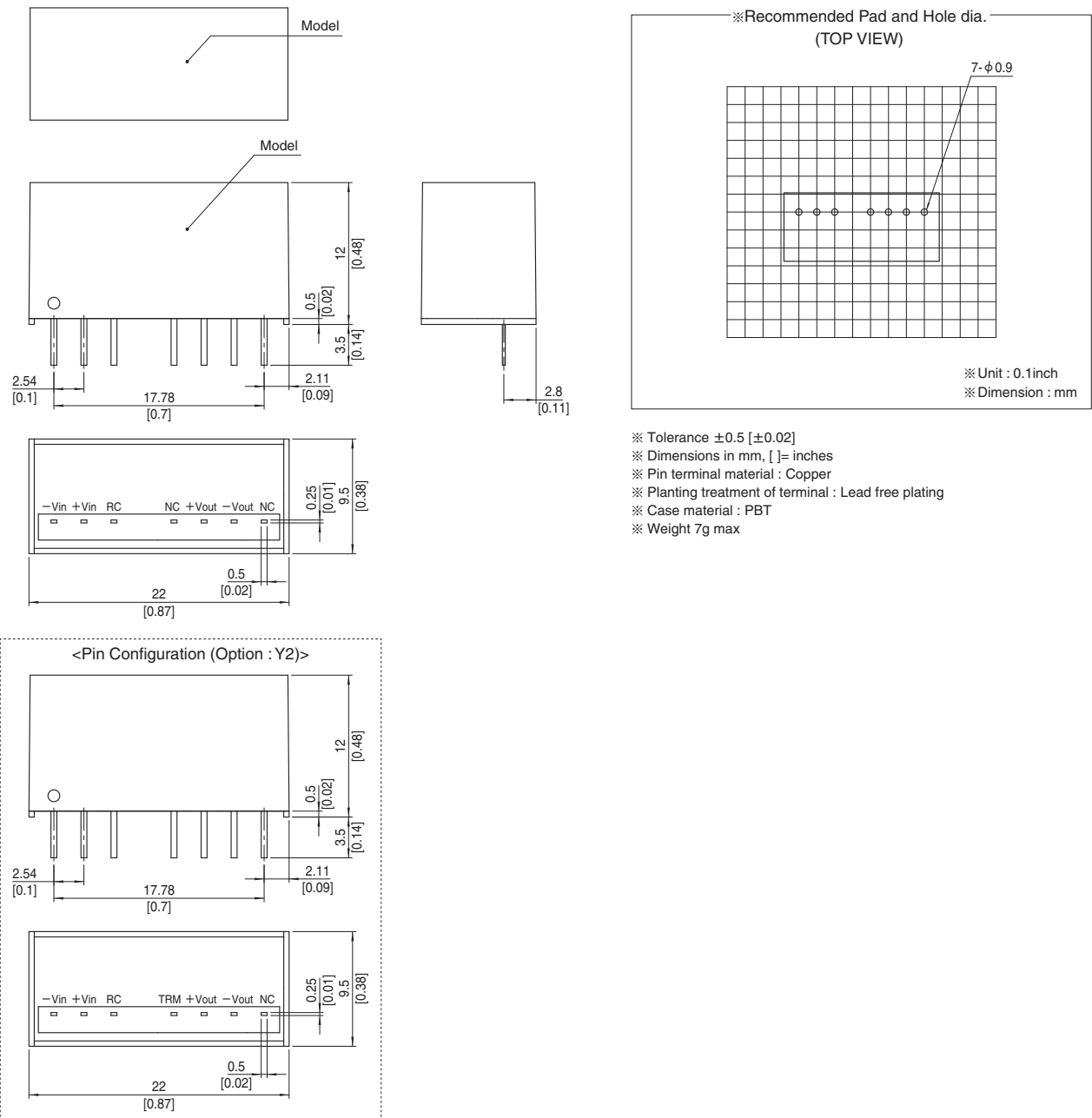
	MODEL	MGFS6483R3	MGFS64805	MGFS64812	MGFS64815
INPUT	VOLTAGE[V]	DC18 - 76 (Surge voltage 100V, 100ms max)			
	CURRENT[A]	*1 0.14typ	0.15typ	0.15typ	0.15typ
	EFFICIENCY[%]	*1 80typ	84typ	88typ	88typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	1.6	1.2	0.5	0.4
	LINE REGULATION[mV]	20max	20max	48max	60max
	LOAD REGULATION[mV]	20max	20max	48max	60max
	RIPPLE[mVp-p]	lo=30% - 75max	75max	100max	100max
		*2 lo=0 - 30% 225max	225max	300max	300max
	RIPPLE NOISE[mVp-p]	lo=30% - 120max	120max	150max	150max
		*2 lo=0 - 30% 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, lo=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)			

GENERAL SPECIFICATIONS

ISOLATION	INPUT-OUTPUT	DC1,500V or AC1,000V 1minute, Cutoff current=10mA, DC500V 1,000M Ω min (20 $\pm$ 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 $\times$ 12.0 $\times$ 9.5mm [0.87 $\times$ 0.48 $\times$ 0.38 inches] (W $\times$ H $\times$ D) / 7g 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 1 μ F 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.
- * MGF6xx12/MGF6xx15 is available as single output, +24V/+30V

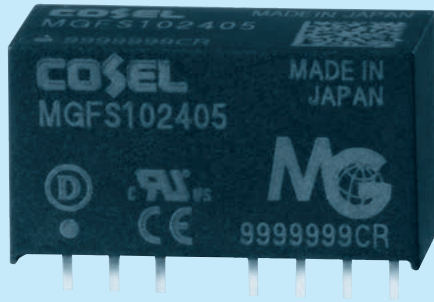
External view



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]	lo=30% - 75max	75max	100max	100max
		*2 lo=0 - 30% 225max	225max	300max	300max
	RIPPLE NOISE[mVp-p]	lo=30% - 120max	120max	150max	150max
		*2 lo=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
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV]	*3 20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, lo=100%)			
	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			
	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

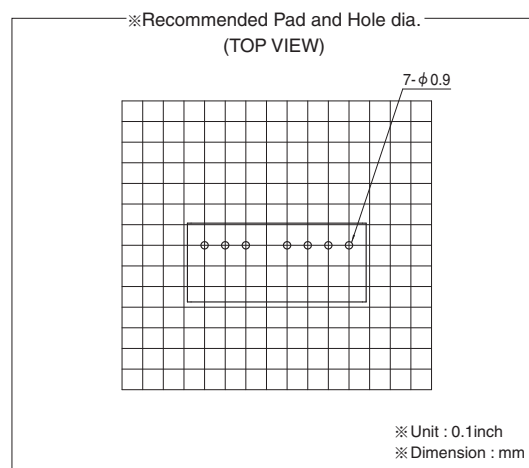
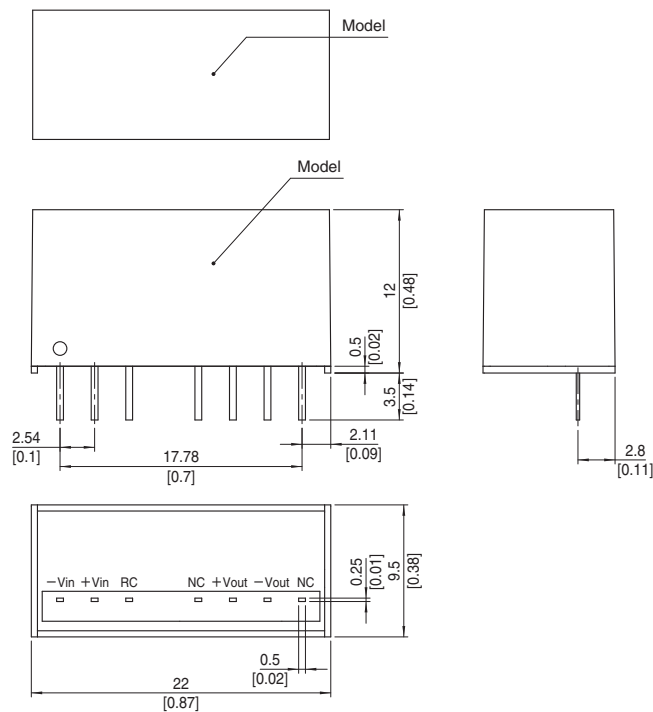
SPECIFICATIONS

	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]	lo=30% - 75max	75max	100max	100max
		*2 lo=0 - 30% 225max	225max	300max	300max
	RIPPLE NOISE[mVp-p]	lo=30% - 120max	120max	150max	150max
		*2 lo=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
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV]	*3 20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, lo=100%)			
	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			
	REMOTE ON/OFF	Provided (Negative logic L : ON, H : OFF)			

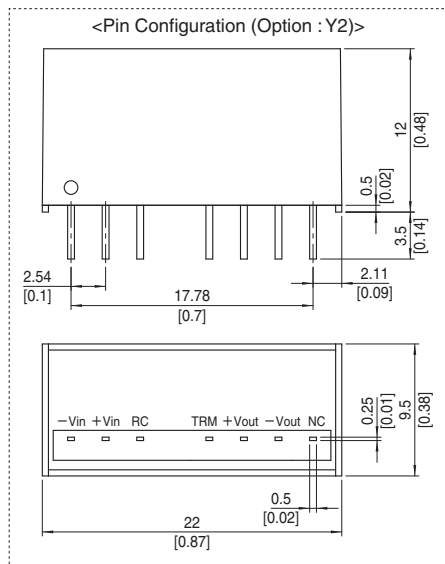
ISOLATION	INPUT-OUTPUT	DC1,500V or AC1,000V 1minute, Cutoff current=10mA, DC500V 1,000MΩ min (20±15℃)
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85℃, 20 to 95%RH (Non condensing) (Required derating), 5,000m (16,400feet) max
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +100℃, 20 to 95%RH (Non condensing), 9,000m (30,000feet) max
	VIBRATION	10 - 55Hz 98.0m/s² (10G), 3minute period, 60minutes each along X, Y and Z axis
	IMPACT	490.3m/s² (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 1 μ F at 50mm from output pins.
- *3 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25 $^{\circ}$ C.
- * Parallel operation with other model is not possible.
- * MGFW10xx12/MGFW10xx15 is available as single output, +24V/+30V

External view



- ※ Tolerance ± 0.5 [± 0.02]
- ※ Dimensions in mm, []= inches
- ※ Pin terminal material : Copper
- ※ Planting treatment of terminal : Lead free plating
- ※ Case material : PBT
- ※ Weight 7g max



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
PROTECTION CIRCUIT AND OTHERS	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
	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically			
PROTECTION CIRCUIT AND OTHERS	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

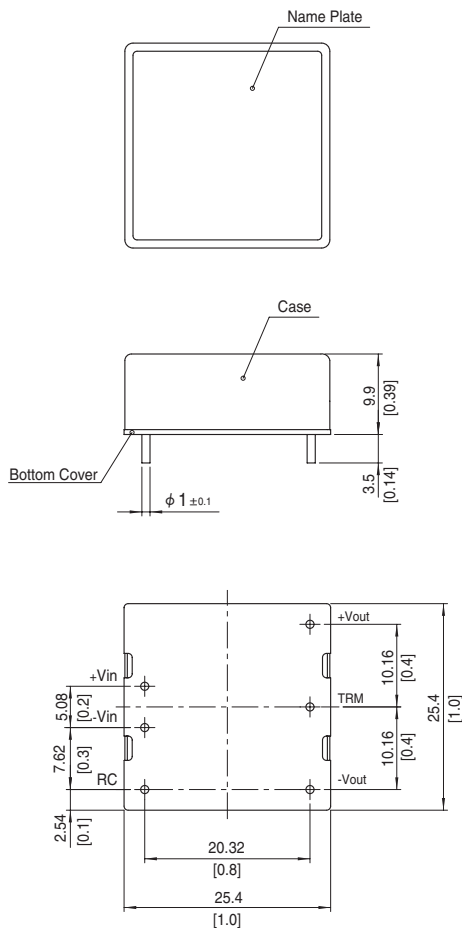
	MODEL	MGFS15483R3	MGFS154805	MGFS154812	MGFS154815
INPUT	VOLTAGE[V]	DC18 - 76			
	CURRENT[A] *2	0.32typ	0.36typ	0.37typ	0.35typ
	EFFICIENCY[%] *2	87typ	88typ	88typ	89typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	4	3	1.3	1
	LINE REGULATION[mV]	13.2max	20max	48max	60max
	LOAD REGULATION[mV]	13.2max	20max	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
PROTECTION CIRCUIT AND OTHERS	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
	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically			
PROTECTION CIRCUIT AND OTHERS	REMOTE ON/OFF	Provided (Negative logic L:ON, H:OFF)			

GENERAL SPECIFICATIONS

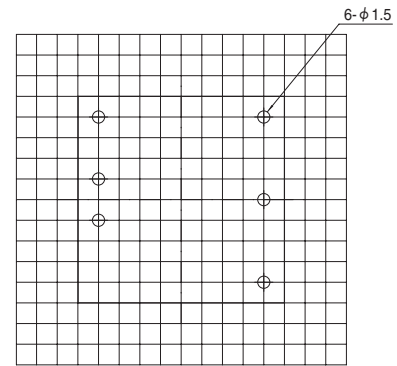
ISOLATION	INPUT-OUTPUT	DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000M Ω min (20 $\pm$ 15 $^{\circ}$ C)
	INPUT-CASE	DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000M Ω min (20 $\pm$ 15 $^{\circ}$ C)
	OUTPUT-CASE	DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000M Ω min (20 $\pm$ 15 $^{\circ}$ 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
	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 $I_o=100\%$
- *3 Ripple and Ripple Noise is measured by using test board with ceramic capacitor 22 μ 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 (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)



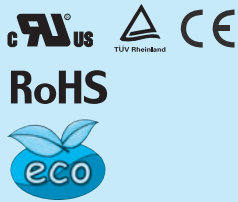
※ Unit : 0.1inch
※ Dimension : mm

- ※ 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] *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
PROTECTION CIRCUIT AND 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 CIRCUIT AND OTHERS	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

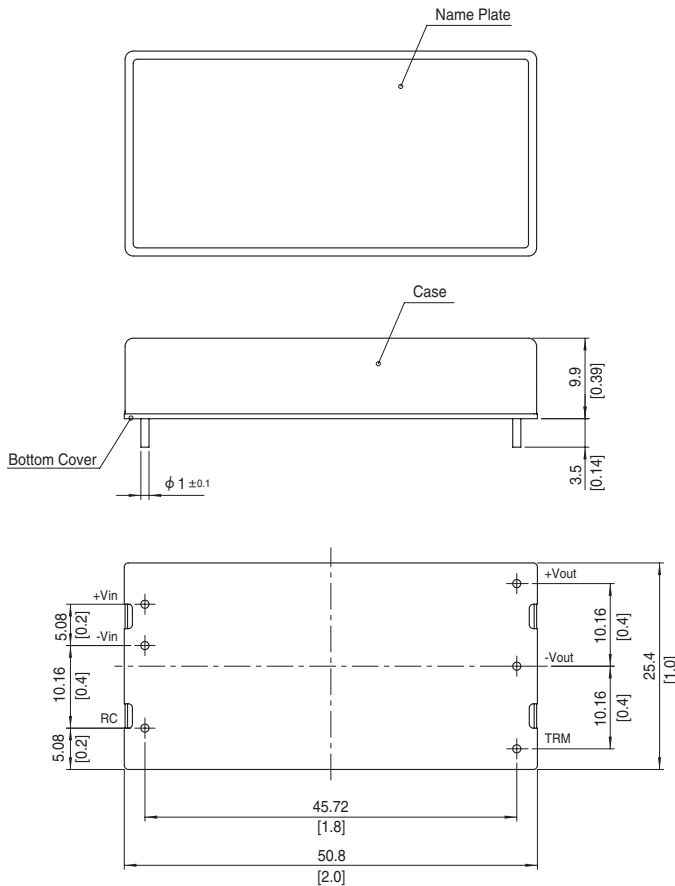
	MODEL	MGFS30483R3	MGFS304805	MGFS304812	MGFS304815
INPUT	VOLTAGE[V]	DC18 - 76			
	CURRENT[A] *2	0.58typ	0.70typ	0.70typ	0.70typ
	EFFICIENCY[%] *2	89typ	90typ	89typ	89typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	7.5	6	2.5	2
	LINE REGULATION[mV]	13.2max	20max	48max	60max
	LOAD REGULATION[mV]	13.2max	20max	48max	60max
	RIPPLE[mVp-p] *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
PROTECTION CIRCUIT AND 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 CIRCUIT AND OTHERS	OVERVOLTAGE PROTECTION	Works over 120 to 160% of rating			
	REMOTE ON/OFF	Provided (Negative logic L:ON, H:OFF)			

GENERAL SPECIFICATIONS

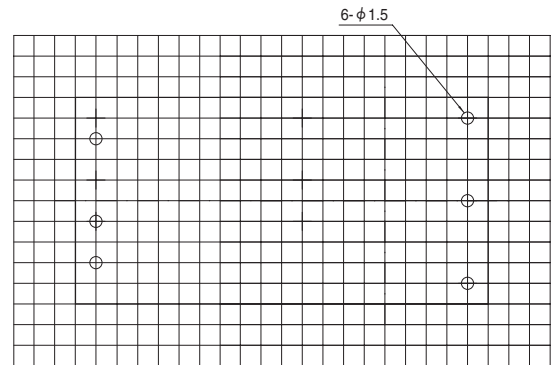
ISOLATION	INPUT-OUTPUT	DC1,500V 1minute, Cutoff current = 10mA, DC500V 1,000M Ω min (20 $\pm$ 15 $^{\circ}$ C)
	INPUT-CASE	DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000M Ω min (20 $\pm$ 15 $^{\circ}$ C)
	OUTPUT-CASE	DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000M Ω min (20 $\pm$ 15 $^{\circ}$ 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
	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 MGFW30xx05/MGFW30xx12/MGFW30xx15 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 22 μ 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 (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)



※ Unit : 0.1inch
※ Dimension : mm

- ※ 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]	-20 to +60°C	75max	75max	100max	100max	75max	75max	100max
		*3 -40 to -20°C	100max	100max	120max	120max	100max	100max	120max
	RIPPLE NOISE[mVp-p]	-20 to +60°C	75max	75max	100max	100max	75max	75max	100max
		*3 -40 to -20°C	150max	150max	150max	150max	150max	150max	150max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	180max	50max	50max	150max	180max
		-40 to +60°C	80max	80max	240max	80max	80max	240max	290max
PROTECTION CIRCUIT AND OTHERS	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
	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically							
PROTECTION CIRCUIT AND OTHERS	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

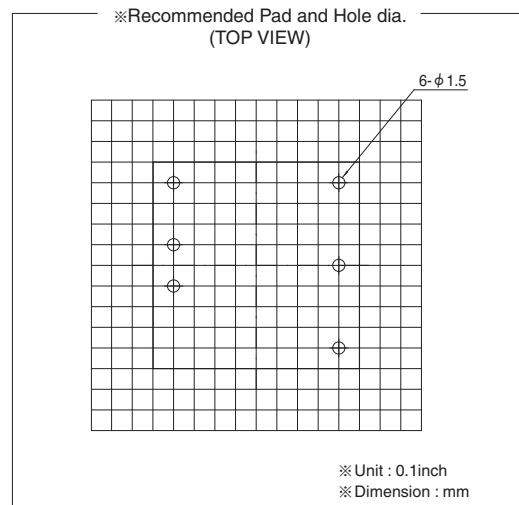
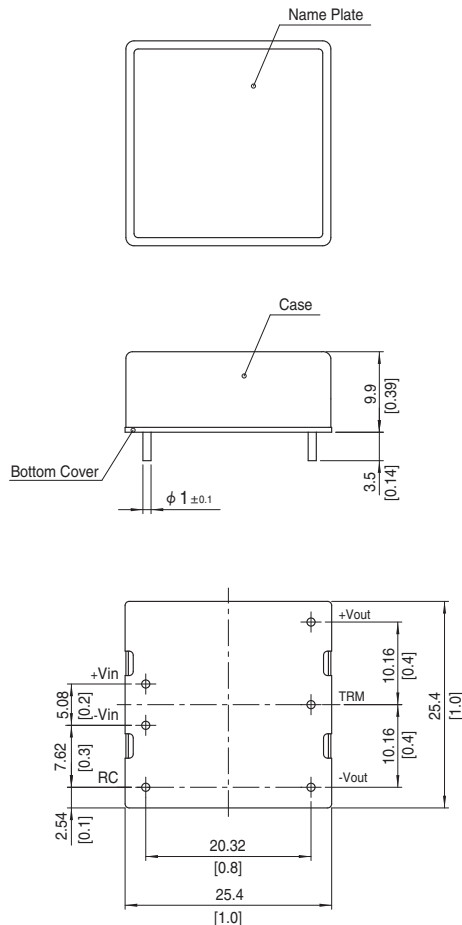
	MODEL	MGFS40483R3	MGFS404805	MGFS404812	MGFS404815
INPUT	VOLTAGE[V]	DC18 - 76 (Surge Voltage 100V, 100ms max)			
	CURRENT[A] *2	0.77typ	0.92typ	0.92typ	0.92typ
	EFFICIENCY[%] *2	89typ	91typ	92typ	92typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	10	8	3.4	2.7
	LINE REGULATION[mV]	13.2max	20max	48max	60max
	LOAD REGULATION[mV]	13.2max	20max	48max	60max
	RIPPLE[mVp-p]	-20 to +60°C	75max	75max	100max
		*3 -40 to -20°C	100max	100max	120max
	RIPPLE NOISE[mVp-p]	-20 to +60°C	75max	75max	100max
		*3 -40 to -20°C	150max	150max	150max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	180max
		-40 to +60°C	80max	80max	240max
PROTECTION CIRCUIT AND OTHERS	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
	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically			
PROTECTION CIRCUIT AND OTHERS	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), 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 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