



www.cosel.co.jp/en

On Board Type DC-DC converter

MG15/30 series

Compact and general use type Isolated type DC-DC converter

10 years warranty



MG15/30 series

Contents

Contents	1
Features of MG series	2
MGS15	3
MGS30	5
MGW15	7
MGW30	9
MGFS15	11
MGFS30	13
MGFW15	15
MGFW30	17



External view	Item	Model	Input voltage [V]	Output voltage[V] / Output current[A]						External dimension [mm] W×H×D
				Single output				2 output		
				3.3[V]	5[V]	12[V]	15[V]	±5(+10)[V]	±12(+24)[V]	
	MG15	DC9-18	4	3	1.3	1	1.5	0.65	0.5	25.4×9.9×25.4
		DC18-36	4	3	1.3	1	1.5	0.65	0.5	
		DC36-76	4	3	1.3	1	1.5	0.65	0.5	
	MGF15 (Wide input)	DC9-36	4	3	1.3	1	1.5	0.65	0.5	25.4×9.9×25.4
		DC18-76	4	3	1.3	1	1.5	0.65	0.5	
	MG30	DC9-18	8	6	2.5	2	2.5	1.25	1	25.4×9.9×50.8
		DC18-36	8	6	2.5	2	2.5	1.25	1	
		DC36-76	8	6	2.5	2	2.5	1.25	1	
	MGF30 (Wide input)	DC9-36	7.5	6	2.5	2	2	1.25	1	25.4×9.9×50.8
		DC18-76	7.5	6	2.5	2	2	1.25	1	

MG MG15/30 series

Compact, general use and isolated type
DC-DC converter

Lineup of 70 models

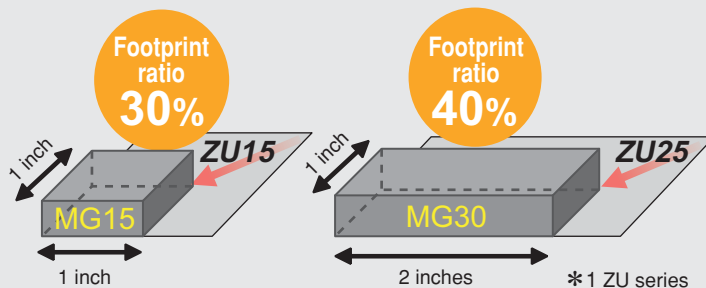
World standard 1 × 1 inch, 1 × 2 inch Isolated type DC-DC converter

When compared to conventional models (our ZU series), downsizing and light-weighted system are achieved. Thus, long-term reliability and high efficiency are both achieved.

In 15/30W class, wide input type are added. With whelming variations, free choice than ever is achieved. Thus, RoHS compliant product that is environment friendly.

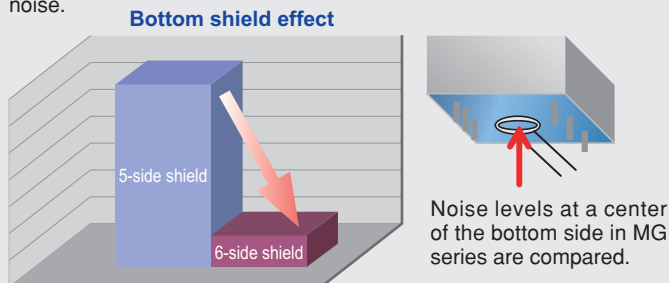
Best-matching to downsizing of the board area

When compared to conventional systems (*1), footprint area on board is 40% or smaller.



Noise countermeasure with 6-side shield.

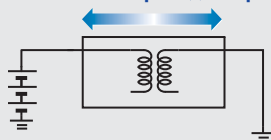
As well as a case, the bottom surface is also shielded for lowering the noise.



Isolation DC1,500V (1 min.)

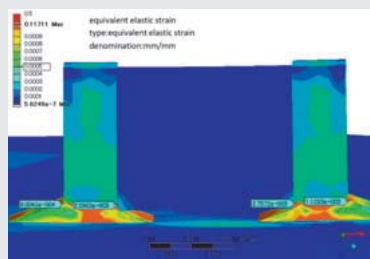
Isolation between input and output is DC1,500V (1 min) and safety level has been increased.

Between input ↔ output



10 years warranty

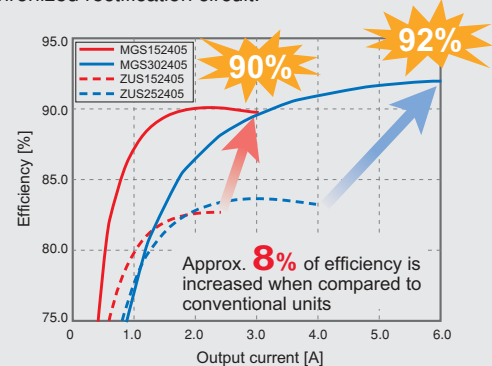
By securing reliability of parts soldering sections, long-term reliability has been achieved.



Warping amount simulation at the ceramic capacitor electrode with a stress simulator.

High efficiency, light-weighted, compact size

Compact sizing and light-weighted are achieved by applying synchronized rectification circuit.



Wide input type is newly added to the lineup.

Conventionally, two systems were used depending on input voltage. With MG series wide input type, only one system is required. Therefore, power supply can be used commonly.



Conventionally, systems of two types were required.

However, corresponding with one system is now available.



Reducing the management cost

Other features

- Wide operating temperature range (-40 to +85°C)
- Remote control function
- Output voltage external variation function (single output)
- Fuse is built-in at the input side
- Built-in synchronized rectification circuit (single output)
- Aluminum electrolysis / tantalum electrolytic capacitor unused
- Safety standard (UL, C-UL, EN) certifications



* Link to www.cosel.co.jp/en for the latest product information.

- 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
	CURRENT[A]	4	3	1.3	1	4	3	1

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	100max	120max
	RIPPLE NOISE[mVp-p] *3	-20 to +60°C	100max	100max	120max	120max	100max	100max	120max
		-40 to -20°C	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	150max	180max	50max	50max	150max
		-40 to -20°C	80max	80max	240max	290max	80max	80max	240max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV] *4	20max	20max	48max	60max	20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	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[V]	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
	CURRENT[A]	4	3	1.3

SPECIFICATIONS

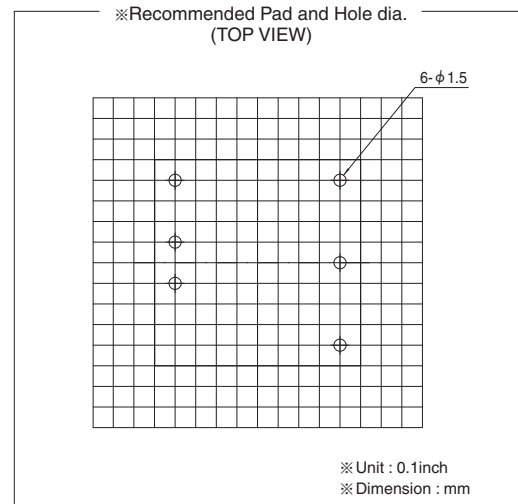
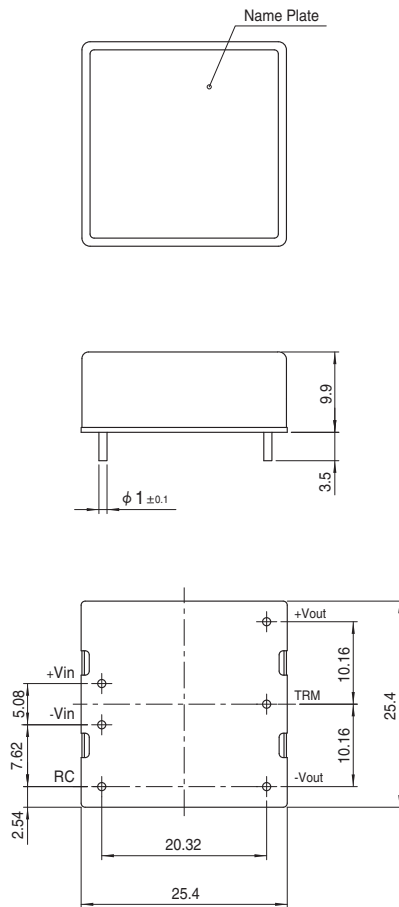
	MODEL	MGS15483R3	MGS154805	MGS154812	MGS154815
INPUT	VOLTAGE[V]	DC36 - 76			
	CURRENT[A] *2	0.32typ	0.35typ	0.36typ	0.35typ
	EFFICIENCY[%] *2	87typ	89typ	90typ	90typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	4	3	1.3	1
	LINE REGULATION[mV]	13.2max	20max	48max	60max
	LOAD REGULATION[mV]	13.2max	20max	48max	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	100max	100max	120max
		-40 to -20°C	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	150max
		-40 to -20°C	80max	80max	240max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV] *4	20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, Io=100%)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	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[V]	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 1,000M 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 (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 $I_o=100\%$
- *3 Ripple and Ripple Noise is measured by using test board with in 50mm from output pin terminals.
- *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



- ※ Tolerance ± 0.5
- ※ Dimensions in mm
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Mass 20g or less



* Link to www.cosel.co.jp/en for the latest product information.

- 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]	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]	2.47typ	2.78typ	2.78typ	2.78typ	1.22typ	1.36typ	1.37typ	1.37typ
	EFFICIENCY[%]	89typ	90typ	90typ	90typ	90typ	92typ	91typ	91typ
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]	-20 to +60°C	75max	75max	100max	100max	75max	75max	100max
		-40 to -20°C	100max	100max	120max	120max	100max	100max	120max
	RIPPLE NOISE[mVp-p]	-20 to +60°C	100max	100max	120max	120max	100max	100max	120max
		-40 to -20°C	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	150max	180max	50max	50max	150max
		-40 to -20°C	80max	80max	240max	290max	80max	80max	240max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV]	20max	20max	48max	60max	20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, I _o =100%)							
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed (TRM pin open) ±10% adjustable by external VR							
	OUTPUT VOLTAGE SETTING[V]	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[V]	Works over 105% of rating and recovers automatically							
PROTECTION CIRCUIT AND OTHERS	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]	3.3	5	12
	CURRENT[A]	8	6	2.5

SPECIFICATIONS

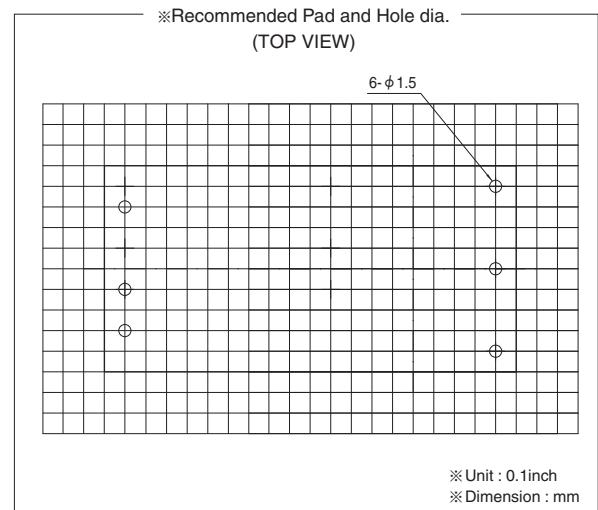
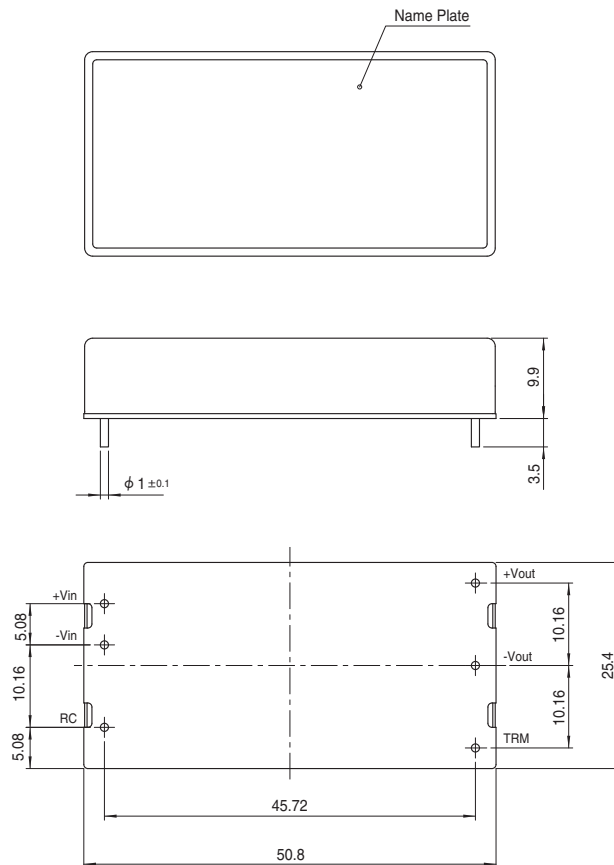
	MODEL	MGS30483R3	MGS304805	MGS304812	MGS304815
INPUT	VOLTAGE[V]	DC36 - 76			
	CURRENT[A]	0.61typ	0.69typ	0.69typ	0.69typ
	EFFICIENCY[%]	90typ	91typ	91typ	91typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	8	6	2.5	2
	LINE REGULATION[mV]	13.2max	20max	48max	60max
	LOAD REGULATION[mV]	13.2max	20max	48max	60max
	RIPPLE[mVp-p]	-20 to +60°C	75max	75max	100max
		-40 to -20°C	100max	100max	120max
	RIPPLE NOISE[mVp-p]	-20 to +60°C	100max	100max	120max
		-40 to -20°C	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	150max
		-40 to -20°C	80max	80max	240max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV]	20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, I _o =100%)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	Fixed (TRM pin open) ±10% adjustable by external VR			
	OUTPUT VOLTAGE SETTING[V]	3.296 - 3.404	4.975 - 5.137	11.857 - 12.243	14.839 - 15.321
	OVERCURRENT PROTECTION[V]	Works over 105% of rating and recovers automatically			
PROTECTION CIRCUIT AND OTHERS	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 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 (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 in 50mm from output pin terminals.
- *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



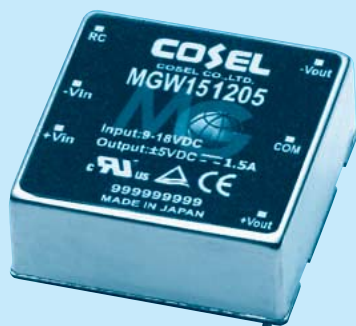
- ※ Tolerance ± 0.5
- ※ Dimensions in mm
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Mass 40g or less



RoHS

* Link to www.cosec.co.jp/en for the latest product information.

- 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	MGW151205	MGW151212	MGW151215	MGW152405	MGW152412	MGW152415	MGW154805	MGW154812	MGW154815
MAX OUTPUT WATTAGE[W]	15	15.6	15	15	15.6	15	15	15.6	15
DC OUTPUT	VOLTAGE[V] *1	±5 or +10	±12 or +24	±15 or +30	±5 or +10	±12 or +24	±15 or +30	±5 or +10	±12 or +24
	CURRENT[A]	1.5	0.65	0.5	1.5	0.65	0.5	1.5	0.65

SPECIFICATIONS

	MODEL	MGW151205	MGW151212	MGW151215	MGW152405	MGW152412	MGW152415	MGW154805	MGW154812	MGW154815
INPUT	VOLTAGE[V]	DC9 - 18			DC18 - 36			DC36 - 76		
	CURRENT[A] *2	1.48typ	1.49typ	1.42typ	0.74typ	0.74typ	0.70typ	0.37typ	0.37typ	0.35typ
	EFFICIENCY[%] *2	84typ	87typ	88typ	84typ	88typ	89typ	84typ	89typ	89typ
OUTPUT	VOLTAGE[V]	±5(+10)	±12(+24)	±15(+30)	±5(+10)	±12(+24)	±15(+30)	±5(+10)	±12(+24)	±15(+30)
	CURRENT[A]	1.5	0.65	0.5	1.5	0.65	0.5	1.5	0.65	0.5
	LINE REGULATION[mV]	40max	60max	75max	40max	60max	75max	40max	60max	75max
	CROSS REGULATION[mV]	*3 500max *5	600max	750max	500max *5	600max	750max	500max *5	600max	750max
		*4 250max	480max	600max	250max	480max	600max	250max	480max	600max
	RIPPLE[mVp-p] *6	-20 to +60℃ 100max	100max	100max	100max	100max	100max	100max	100max	100max
		-40 to -20℃ 120max	120max	120max	120max	120max	120max	120max	120max	120max
	RIPPLE NOISE[mVp-p] *6	-20 to +60℃ 120max	120max	120max	120max	120max	120max	120max	120max	120max
		-40 to -20℃ 200max	200max	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60℃ 50max	150max	180max	50max	150max	180max	50max	150max	180max
		-40 to -20℃ 80max	240max	290max	80max	240max	290max	80max	240max	290max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV] *7	50max	50max	60max	50max	50max	60max	50max	50max	60max
	START-UP TIME[ms]	30max (Minimum input, Io=100%)								
	OUTPUT VOLTAGE SETTING[V] *8	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505
	OVERCURRENT PROTECTION[V]	Works over 105% of rating and recovers automatically								
	REMOTE ON/OFF	Provided (Negative logic L:ON, H:OFF)								
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	UL60950-1, C-UL, EN60950-1								
OTHERS	CASE SIZE/WEIGHT	25.4×9.9×25.4mm (W×H×D) / 20g max								
	COOLING METHOD	Convection/Forced air								

*1 Single output +10V, +24V, +30V with no use of COM.

*2 Rated input 12V, 24V or 48V Io=100%

*3 An output load is 100%, the other load is 5% to 100%.

*4 An output load is 100%, the other load is 20% to 100%.

*5 Refer to the instruction manual 11.

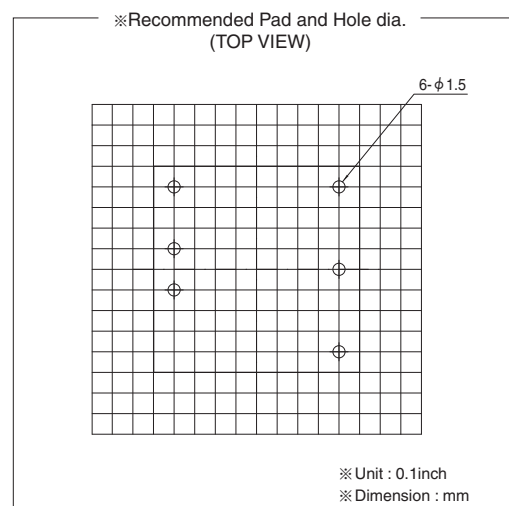
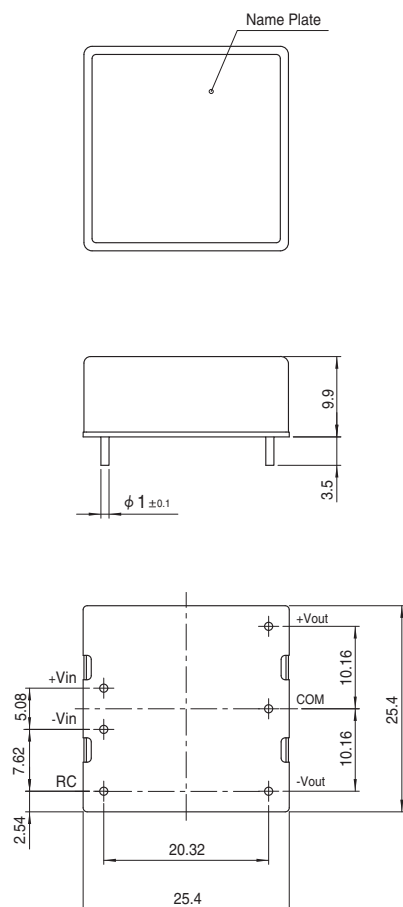
*6 Ripple and Ripple Noise is measured by using test board with in 50mm from output pin terminals.

*7 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25℃.

*8 Rated input voltage (DC12V, DC24V, DC48V), rated output wattage, ambient temperature at 25℃.

* Parallel operation with other model is not possible.

External view



- ※ Tolerance ± 0.5
- ※ Dimensions in mm
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Mass 20g or less



RoHS

* Link to www.cosec.co.jp/en for the latest product information.

- 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		MGW301205	MGW301212	MGW301215	MGW302405	MGW302412	MGW302415	MGW304805	MGW304812	MGW304815
MAX OUTPUT WATTAGE[W]		25	30	30	25	30	30	25	30	30
DC OUTPUT	VOLTAGE[V] *1	±5 or +10	±12 or +24	±15 or +30	±5 or +10	±12 or +24	±15 or +30	±5 or +10	±12 or +24	±15 or +30
	CURRENT[A]	2.5	1.25	1	2.5	1.25	1	2.5	1.25	1

SPECIFICATIONS

	MODEL	MGW301205	MGW301212	MGW301215	MGW302405	MGW302412	MGW302415	MGW304805	MGW304812	MGW304815
INPUT	VOLTAGE[V]	DC9 - 18			DC18 - 36			DC36 - 76		
	CURRENT[A]	*2 2.42typ	2.81typ	2.81typ	1.21typ	1.40typ	1.40typ	0.61typ	0.70typ	0.70typ
	EFFICIENCY[%]	*2 86typ	89typ	89typ	86typ	89typ	89typ	86typ	89typ	89typ
OUTPUT	VOLTAGE[V]	±5(+10)	±12(+24)	±15(+30)	±5(+10)	±12(+24)	±15(+30)	±5(+10)	±12(+24)	±15(+30)
	CURRENT[A]	2.5	1.25	1	2.5	1.25	1	2.5	1.25	1
	LINE REGULATION[mV]	40max	60max	75max	40max	60max	75max	40max	60max	75max
	CROSS REGULATION[mV]	*3 500max	*5 600max	750max	500max	*5 600max	750max	500max	*5 600max	750max
		*4 250max	480max	600max	250max	480max	600max	250max	480max	600max
	RIPPLE[mVp-p]	-20 to +60°C	100max	100max	100max	100max	100max	100max	100max	100max
		-40 to -20°C	120max	120max	120max	120max	120max	120max	120max	120max
	RIPPLE NOISE[mVp-p]	-20 to +60°C	120max	120max	120max	120max	120max	120max	120max	120max
		-40 to -20°C	200max	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	150max	180max	50max	150max	50max	150max	180max
		-40 to -20°C	80max	240max	290max	80max	240max	80max	240max	290max
	DRIFT[mV]	*7 50max	50max	60max	50max	50max	60max	50max	50max	60max
	START-UP TIME[ms]	30max (Minimum input, I _o =100%)								
	OUTPUT VOLTAGE SETTING[V]*8	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION[V]	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)								
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 (W X H X D) / 40g max								
	COOLING METHOD	Convection/Forced air								

*1 Single output +10V, +24V, +30V with no use of COM.

*2 Rated input 12V, 24V or 48V DC I_o=100%

*3 Symmetrical loading from 5% to 100%.

*4 Symmetrical loading from 20% to 100%.

*5 Refer to the instruction manual 11.

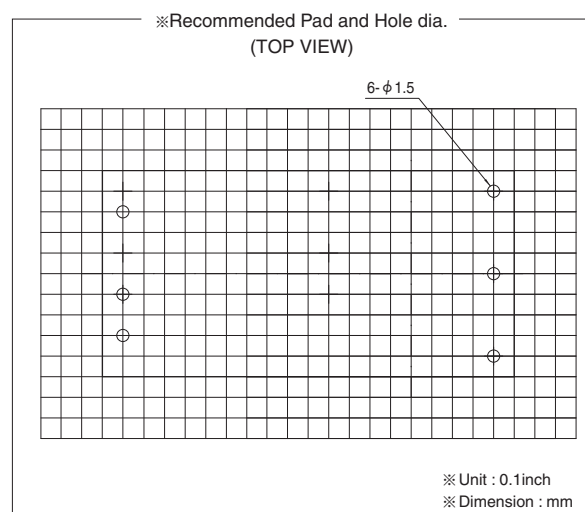
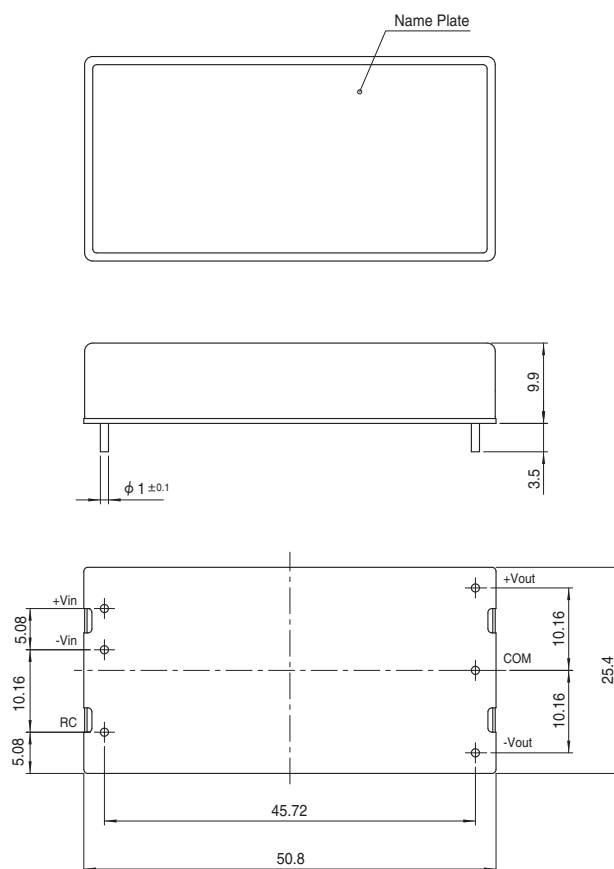
*6 Ripple and Ripple Noise is measured by using test board with in 50mm from output pin terminals.

*7 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25°C.

*8 Rated input voltage (DC12V, DC24V, DC48V), rated output wattage, ambient temperature at 25°C.

* Parallel operation with other model is not possible.

External view



- ※ Tolerance ± 0.5
- ※ Dimensions in mm
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Mass 40g or less



* Link to www.cosel.co.jp/en for the latest product information.

- 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
		-40 to -20°C	100max	100max	120max
	RIPPLE NOISE[mVp-p] *3	-20 to +60°C	100max	100max	120max
		-40 to -20°C	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	150max
		-40 to -20°C	80max	80max	240max
	DRIFT[mV] *4	20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, I _o =100%)			
PROTECTION CIRCUIT AND OTHERS	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	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[V]	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

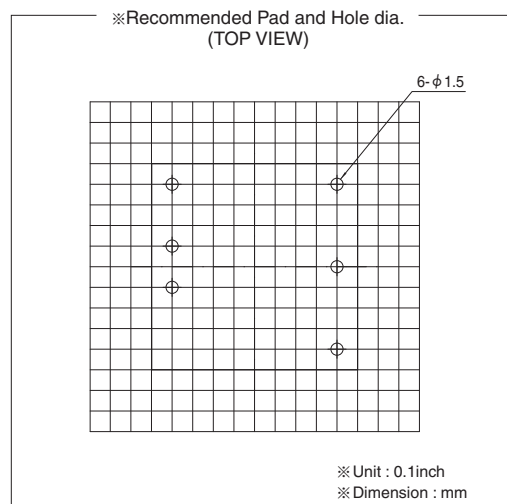
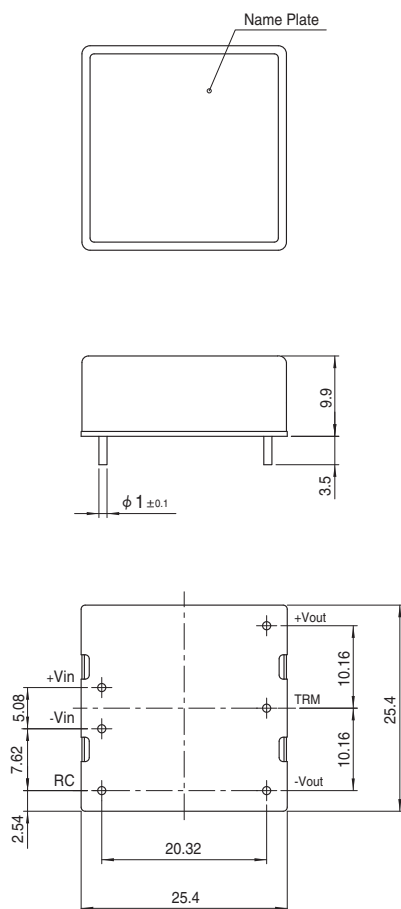
	MODEL	MGFS15483R3	MGFS154805	MGFS154812	MGFS154815
INPUT	VOLTAGE[V]	DC18 - 76			
	CURRENT[A] *2	0.32typ	0.36typ	0.37typ	0.35typ
	EFFICIENCY[%] *2	87typ	88typ	88typ	89typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	4	3	1.3	1
	LINE REGULATION[mV]	13.2max	20max	48max	60max
	LOAD REGULATION[mV]	13.2max	20max	48max	60max
	RIPPLE[mVp-p] *3	-20 to +60°C	75max	75max	100max
		-40 to -20°C	100max	100max	120max
	RIPPLE NOISE[mVp-p] *3	-20 to +60°C	100max	100max	120max
		-40 to -20°C	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	150max
		-40 to -20°C	80max	80max	240max
	DRIFT[mV] *4	20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, I _o =100%)			
PROTECTION CIRCUIT AND OTHERS	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	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[V]	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 1,000M 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
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 25.4mm (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 in 50mm from output pin terminals.
- *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



- ※ Tolerance ± 0.5
- ※ Dimensions in mm
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Mass 20g or less



* Link to www.cosel.co.jp/en for the latest product information.

- 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	1.17typ	1.40typ	1.40typ	1.40typ
	EFFICIENCY[%] *2	88typ	89typ	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
		-40 to -20°C	100max	100max	120max
	RIPPLE NOISE[mVp-p] *3	-20 to +60°C	100max	100max	120max
		-40 to -20°C	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	150max
		-40 to -20°C	80max	80max	240max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV] *4	20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, Io=100%)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	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[V]	Works over 105% of rating and recovers automatically			
PROTECTION CIRCUIT AND OTHERS	OVERVOLTAGE PROTECTION[V]	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

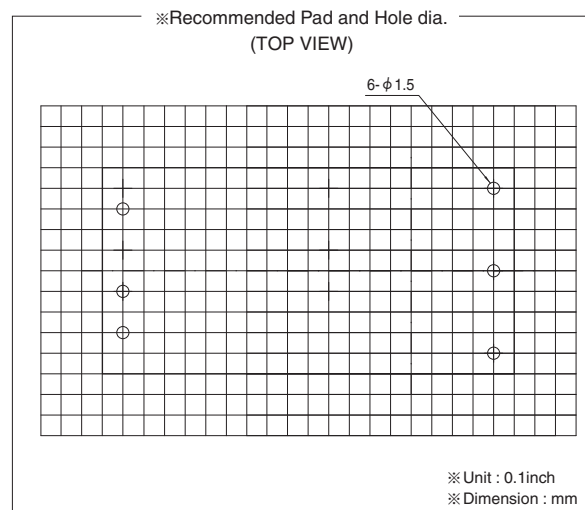
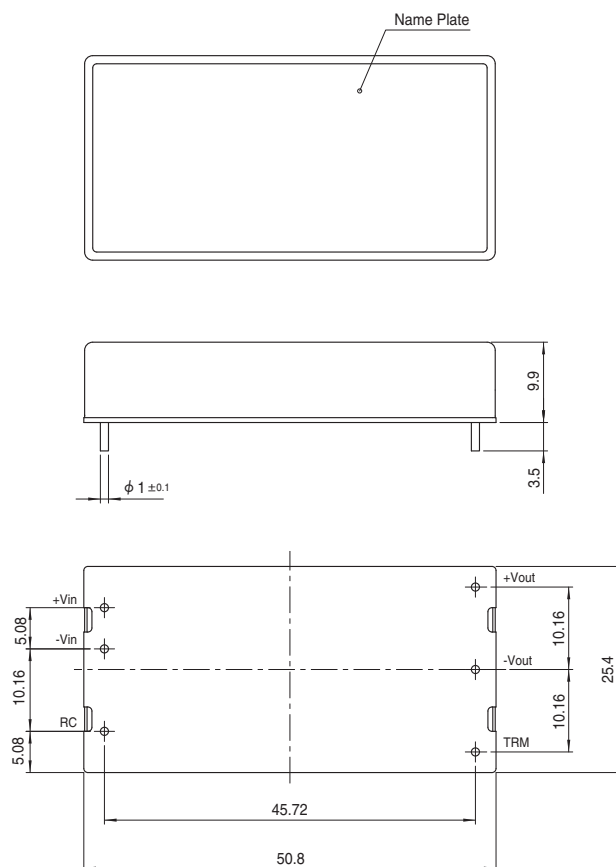
	MODEL	MGFS30483R3	MGFS304805	MGFS304812	MGFS304815
INPUT	VOLTAGE[V]	DC18 - 76			
	CURRENT[A] *2	0.59typ	0.70typ	0.70typ	0.70typ
	EFFICIENCY[%] *2	88typ	89typ	89typ	89typ
OUTPUT	VOLTAGE[V]	3.3	5	12	15
	CURRENT[A]	7.5	6	2.5	2
	LINE REGULATION[mV]	13.2max	20max	48max	60max
	LOAD REGULATION[mV]	13.2max	20max	48max	60max
	RIPPLE[mVp-p] *3	-20 to +60°C	75max	75max	100max
		-40 to -20°C	100max	100max	120max
	RIPPLE NOISE[mVp-p] *3	-20 to +60°C	100max	100max	120max
		-40 to -20°C	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C	50max	50max	150max
		-40 to -20°C	80max	80max	240max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV] *4	20max	20max	48max	60max
	START-UP TIME[ms]	30max (Minimum input, Io=100%)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	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[V]	Works over 105% of rating and recovers automatically			
PROTECTION CIRCUIT AND OTHERS	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 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 (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 $I_o=100\%$
- *3 Ripple and Ripple Noise is measured by using test board with in 50mm from output pin terminals.
- *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



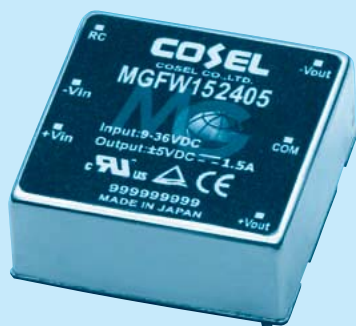
- ※ Tolerance ± 0.5
- ※ Dimensions in mm
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Mass 40g or less



RoHS

* Link to www.cosel.co.jp/en for the latest product information.

- 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	MGFW152405	MGFW152412	MGFW152415	MGFW154805	MGFW154812	MGFW154815
MAX OUTPUT WATTAGE[W]	15	15.6	15	15	15.6	15
DC OUTPUT	VOLTAGE[V] *1	±5 or +10	±12 or +24	±15 or +30	±5 or +10	±12 or +24
	CURRENT[A]	1.5	0.65	0.5	1.5	0.65

SPECIFICATIONS

	MODEL	MGFW152405	MGFW152412	MGFW152415	MGFW154805	MGFW154812	MGFW154815
INPUT	VOLTAGE[V]	DC9 - 36			DC18 - 76		
	CURRENT[A] *2	0.74typ	0.74typ	0.70typ	0.37typ	0.37typ	0.36typ
	EFFICIENCY[%] *2	84typ	88typ	89typ	84typ	87typ	88typ
OUTPUT	VOLTAGE[V]	±5(+10)	±12(+24)	±15(+30)	±5(+10)	±12(+24)	±15(+30)
	CURRENT[A]	1.5	0.65	0.5	1.5	0.65	0.5
	LINE REGULATION[mV]	40max	60max	75max	40max	60max	75max
	CROSS REGULATION[mV]	*3 500max *5	600max	750max	500max *5	600max	750max
		*4 250max	480max	600max	250max	480max	600max
	RIPPLE[mVp-p] *6	-20 to +60℃ 100max	100max	100max	100max	100max	100max
		-40 to -20℃ 120max	120max	120max	120max	120max	120max
	RIPPLE NOISE[mVp-p] *6	-20 to +60℃ 120max	120max	120max	120max	120max	120max
		-40 to -20℃ 200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60℃ 50max	150max	180max	50max	150max	180max
		-40 to -20℃ 80max	240max	290max	80max	240max	290max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV] *7	50max	50max	60max	50max	50max	60max
	START-UP TIME[ms]	30max (Minimum input, Io=100%)					
	OUTPUT VOLTAGE SETTING[V] *8	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505
	OVERCURRENT PROTECTION[V]	Works over 105% of rating and recovers automatically					
ISOLATION	REMOTE ON/OFF	Provided (Negative logic L:ON, H:OFF)					
	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℃)					
ENVIRONMENT	OUTPUT-CASE	DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15℃)					
	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					
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	25.4×9.9×25.4mm (W×H×D) / 20g max					
	COOLING METHOD	Convection/Forced air					

*1 Single output +10V, +24V, +30V with no use of COM.

*2 Rated input 12V, 24V or 48V DC Io=100%

*3 Symmetrical loading from 5% to 100%.

*4 Symmetrical loading from 20% to 100%.

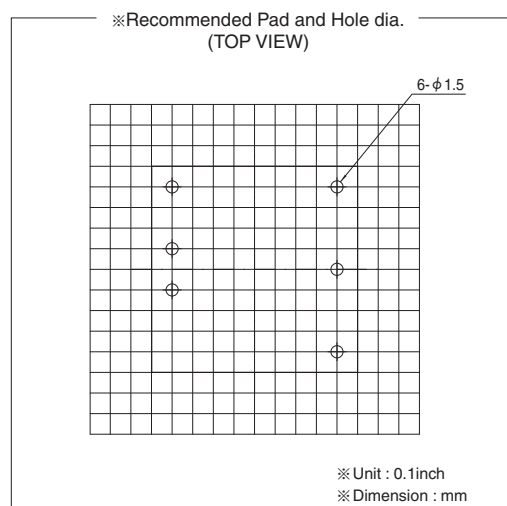
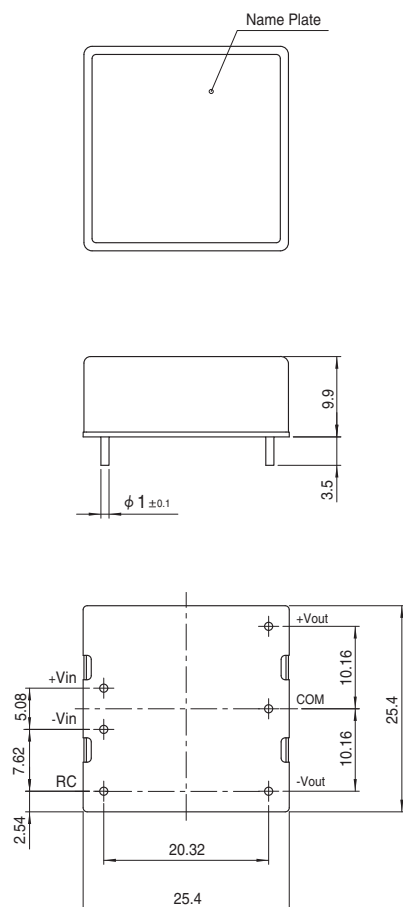
*5 Refer to the instruction manual 11.

*6 Ripple and Ripple Noise is measured by using test board with in 50mm from output pin terminals.

*7 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25℃.

*8 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25℃. Parallel operation with other model is not possible.

External view



- ※ Tolerance ± 0.5
- ※ Dimensions in mm
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Mass 20g or less



RoHS

* Link to www.cosel.co.jp/en for the latest product information.

- 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	MGFW302405	MGFW302412	MGFW302415	MGFW304805	MGFW304812	MGFW304815
MAX OUTPUT WATTAGE[W]	20	30	30	20	30	30
DC OUTPUT	VOLTAGE[V] *1	±5 or +10	±12 or +24	±15 or +30	±5 or +10	±12 or +24
	CURRENT[A]	2	1.25	1	2	1.25

SPECIFICATIONS

	MODEL	MGFW302405	MGFW302412	MGFW302415	MGFW304805	MGFW304812	MGFW304815
INPUT	VOLTAGE[V]	DC9 - 36			DC18 - 76		
	CURRENT[A] *2	0.98typ	1.44typ	1.44typ	0.49typ	0.72typ	0.72typ
	EFFICIENCY[%] *2	85typ	87typ	87typ	85typ	87typ	87typ
OUTPUT	VOLTAGE[V]	±5(+10)	±12(+24)	±15(+30)	±5(+10)	±12(+24)	±15(+30)
	CURRENT[A]	2	1.25	1	2	1.25	1
	LINE REGULATION[mV]	40max	60max	75max	40max	60max	75max
	CROSS REGULATION[mV]	*3 500max *5	600max	750max	500max *5	600max	750max
		*4 250max	480max	600max	250max	480max	600max
	RIPPLE[mVp-p]	-20 to +60°C 100max	100max	100max	100max	100max	100max
		*6 -40 to -20°C 120max	120max	120max	120max	120max	120max
	RIPPLE NOISE[mVp-p]	-20 to +60°C 120max	120max	120max	120max	120max	120max
		*6 -40 to -20°C 200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +60°C 50max	150max	180max	50max	150max	180max
		-40 to -20°C 80max	240max	290max	80max	240max	290max
PROTECTION CIRCUIT AND OTHERS	DRIFT[mV] *7	50max	50max	60max	50max	50max	60max
	START-UP TIME[ms]	30max (Minimum input, Io=100%)					
	OUTPUT VOLTAGE SETTING[V] *8	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505	4.935 - 5.240	11.765 - 12.492	14.602 - 15.505
	OVERCURRENT PROTECTION[V]	Works over 105% of rating and recovers automatically					
	OVERVOLTAGE PROTECTION[V]	Works over 120 to 160% of rating					
ISOLATION	REMOTE ON/OFF	Provided (Negative logic L:ON, H:OFF)					
	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)					
ENVIRONMENT	OUTPUT-CASE	DC1,000V 1minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)					
	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 (W X H X D) / 40g max					
	COOLING METHOD	Convection/Forced air					

*1 Single output +10V, +24V, +30V with no use of COM.

*2 Rated input 12V, 24V or 48V DC Io=100%

*3 Symmetrical loading from 5% to 100%.

*4 Symmetrical loading from 20% to 100%.

*5 Refer to the instruction manual 11.

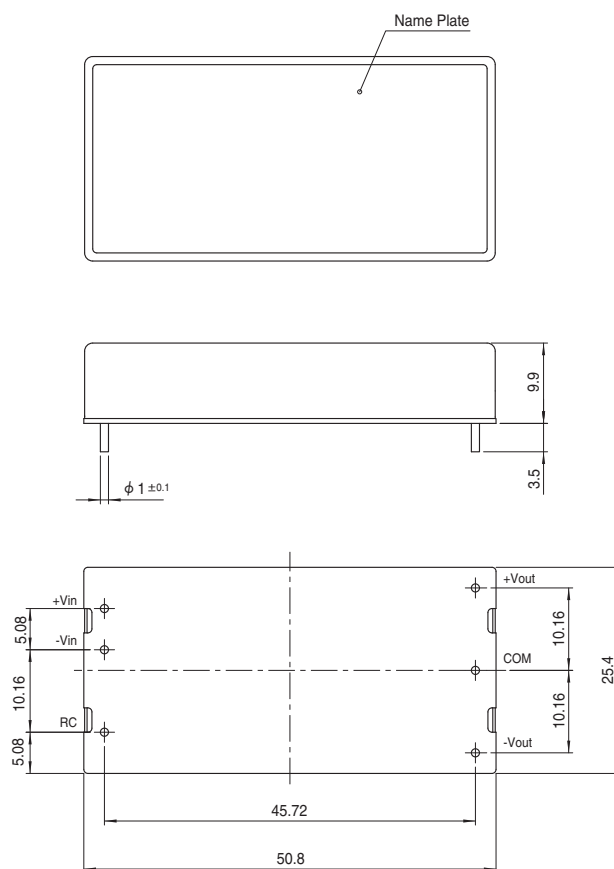
*6 Ripple and Ripple Noise is measured by using test board with in 50mm from output pin terminals.

*7 Drift is the DC output accuracy for eight hours period after a half-hour warm-up at 25°C.

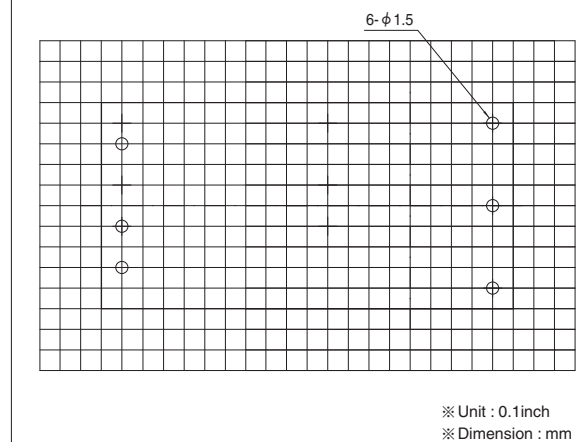
*8 Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C.

* Parallel operation with other model is not possible.

External view



※Recommended Pad and Hole dia.
(TOP VIEW)



- ※ Tolerance ± 0.5
- ※ Dimensions in mm
- ※ Pin terminal material : Copper
- ※ Plating treatment of terminal : Lead free plating
- ※ Case material : Brass
- ※ Plating treatment of case : Nickel plating
- ※ Please keep enough creepage distance with the pattern on PCB and other components.
- ※ Mass 40g or less

■ Head Office

COSEL CO., LTD.

1-6-43 Kamiakae-machi,
Toyama 930-0816, Japan

Phone: +81-764-32-8152

F a x : +81-764-42-9660

e-mail: kaigai@cosel.co.jp

URL <http://www.cosel.co.jp/en>

■ Overseas Sales Network

《AMERICA》

COSEL U.S.A., INC.

1546 Montague Expressway,
San Jose, CA95131 U.S.A.

Phone: +1-408-980-5144

Phone(Free): +1-800-888-3526

F a x : +1-408-980-9754

e-mail: sales@coselusa.com

URL <http://www.coselusa.com>

<Engineering and Technical Support>

Phone(Free): +1-866-921-0968

e-mail: techsupport@coselusa.com

《EUROPE》

COSEL EUROPE GmbH

Berner Str. 51

60437 Frankfurt am Main, Germany

Phone: +49-69-95 00 79-0

F a x : +49-69-50 83 02 00

e-mail: sales@coselurope.eu

URL <http://www.coseleurope.eu>

《ASIA》

COSEL ASIA LTD.

Rm. 601, 9 Chong Yip Street
Kwun Tong, Kowloon, Hong Kong

Phone: +852-2305-2712

F a x : +852-2305-3006

e-mail: sales@coselasia.com

URL <http://www.coselasia.com>

COSEL (SHANGHAI) ELECTRONICS CO., LTD.

Room 3F2, Zhao Feng Universe Building,
1800 Zhong Shan West Road,
Shanghai, 200235, P.R.China

Phone: +86-21-6440-0381

F a x : +86-21-6440-0380

e-mail: sales@coselasia.com

URL <http://www.coselasia.com>





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

Наши преимущества:

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

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

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



Как с нами связаться

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

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

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