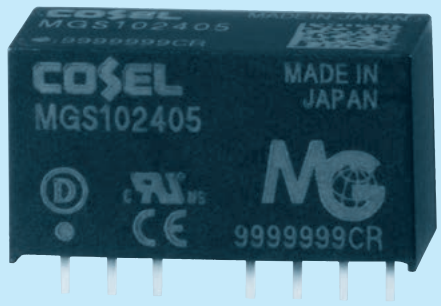
COSEL DC-DC Converters PCB Mount Type

MGS10

Ordering information

MG	S	10	24	05	-□
①	②	③	④	⑤	⑥



①Series name
②Single output
③Output wattage
④Input voltage
⑤Output voltage
⑥Optional
Y2: Output voltage adjustable (+10%, -5%)

MODEL		MGS10053R3	MGS100505	MGS100512	MGS100515	MGS10123R3	MGS101205	MGS101212	MGS101215
MAX OUTPUT WATTAGE[W]		8.58	10.0	10.8	10.5	8.58	10.0	10.8	10.5
DC OUTPUT	VOLTAGE[V]	3.3	5	12	15	3.3	5	12	15
	CURRENT[A]	2.6	2.0	0.9	0.7	2.6	2.0	0.9	0.7

SPECIFICATIONS

	MODEL		MGS10053R3	MGS100505	MGS100512	MGS100515	MGS10123R3	MGS101205	MGS101212	MGS101215
INPUT	VOLTAGE[V]		DC4.5 - 9 (Surge voltage 12.5V, 100ms max)				DC9 - 18 (Surge voltage 25V, 100ms max)			
	CURRENT[A]	*1	2.02typ	2.30typ	2.46typ	2.39typ	0.83typ	0.94typ	1.02typ	0.99typ
	EFFICIENCY[%]	*1	85typ	87typ	88typ	88typ	87typ	89typ	89typ	89typ
OUTPUT	VOLTAGE[V]		3.3	5	12	15	3.3	5	12	15
	CURRENT[A]		2.6	2.0	0.9	0.7	2.6	2.0	0.9	0.7
	LINE REGULATION[mV]		20max	20max	48max	60max	20max	20max	48max	60max
	LOAD REGULATION[mV]		20max	20max	48max	60max	20max	20max	48max	60max
	RIPPLE[mVp-p]	Io=30% -	75max	75max	100max	100max	75max	75max	100max	100max
		*2 Io=0 - 30%	225max	225max	300max	300max	225max	225max	300max	300max
	RIPPLE NOISE[mVp-p]	Io=30% -	120max	120max	150max	150max	120max	120max	150max	150max
		*2 Io=0 - 30%	300max	300max	400max	400max	300max	300max	400max	400max
	TEMPERATURE REGULATION[mV]	-20 to +50℃	50max	50max	150max	180max	50max	50max	150max	180max
		-40 to +50℃	80max	80max	240max	290max	80max	80max	240max	290max
	DRIFT[mV]	*3	20max	20max	48max	60max	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	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			MGS10243R3	MGS102405	MGS102412	MGS102415	MGS10483R3	MGS104805	MGS104812	MGS104815
MAX OUTPUT WATTAGE[W]			8.58	10.0	10.8	10.5	8.58	10.0	10.8	10.5
DC OUTPUT	VOLTAGE[V]	*1	3.3	5	12	15	3.3	5	12	15
	CURRENT[A]		2.6	2.0	0.9	0.7	2.6	2.0	0.9	0.7

SPECIFICATIONS

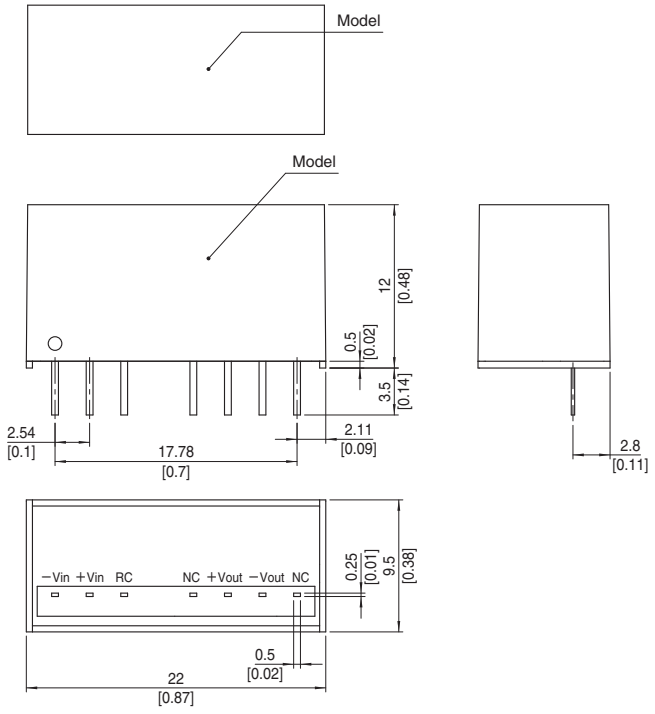
	MODEL		MGS10243R3	MGS102405	MGS102412	MGS102415	MGS10483R3	MGS104805	MGS104812	MGS104815
INPUT	VOLTAGE[V]		DC18 - 36 (Surge voltage 50V, 100ms max)				DC36 - 76 (Surge voltage 100V, 100ms max)			
	CURRENT[A]	*1	0.42typ	0.47typ	0.50typ	0.49typ	0.21typ	0.24typ	0.25typ	0.25typ
	EFFICIENCY[%]	*1	87typ	89typ	90typ	90typ	87typ	89typ	90typ	90typ
OUTPUT	VOLTAGE[V]		3.3	5	12	15	3.3	5	12	15
	CURRENT[A]		2.6	2.0	0.9	0.7	2.6	2.0	0.9	0.7
	LINE REGULATION[mV]		20max	20max	48max	60max	20max	20max	48max	60max
	LOAD REGULATION[mV]		20max	20max	48max	60max	20max	20max	48max	60max
	RIPPLE[mVp-p]	Io=30% -	75max	75max	100max	100max	75max	75max	100max	100max
		*2 Io=0 - 30%	225max	225max	300max	300max	225max	225max	300max	300max
	RIPPLE NOISE[mVp-p]	Io=30% -	120max	120max	150max	150max	120max	120max	150max	150max
		*2 Io=0 - 30%	300max	300max	400max	400max	300max	300max	400max	400max
	TEMPERATURE REGULATION[mV]	-20 to +50℃	50max	50max	150max	180max	50max	50max	150max	180max
		-40 to +50℃	80max	80max	240max	290max	80max	80max	240max	290max
	DRIFT[mV]	*3	20max	20max	48max	60max	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	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)							

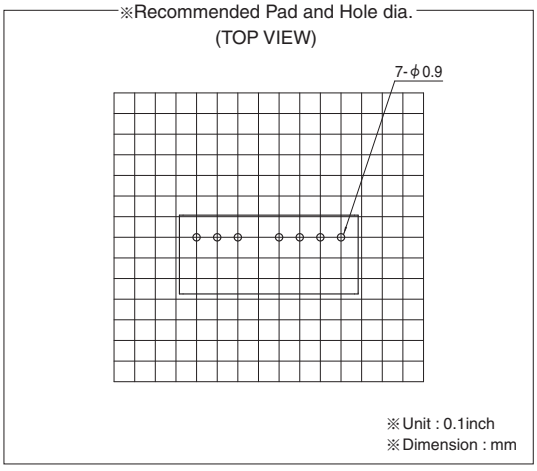
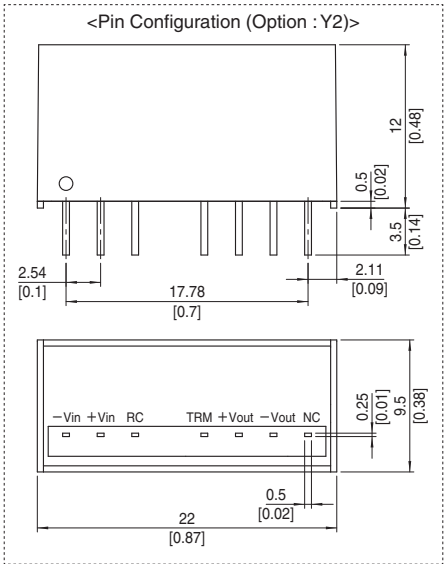
GENERAL SPECIFICATIONS

ISOLATION	INPUT-OUTPUT	DC1,500V or AC1,000V 1minute, Cutoff current=10mA, DC500V 1,000MΩ 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 5V, 12V, 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℃.
* Parallel operation with other model is not possible.
* MGW10xx12/MGW10xx15 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