

DC-DC Converters PCB Mount type

MGFS15

Ordering Information

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[%] *3	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]	-20 to +60°C	75max	75max	100max	100max
		-40 to -20°C	100max	100max	120max	120max
	RIPPLE NOISE[mVp-p]	-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

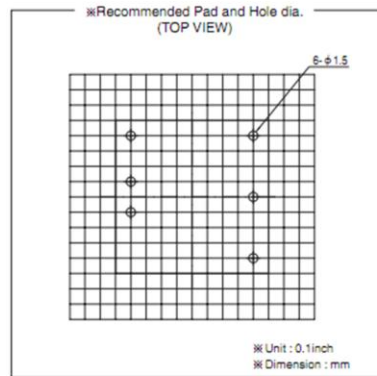
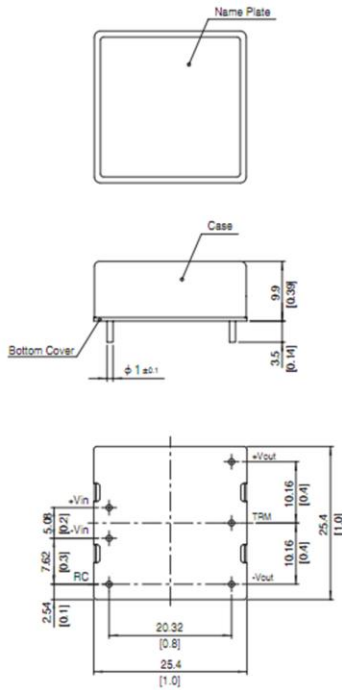
SPECIFICATIONS

	MODEL	MGFS15483R3	MGFS154805	MGFS154812	MGFS154815	
INPUT	VOLTAGE[V]	DC18 - 76				
	CURRENT[A] *2	0.32typ	0.36typ	0.37typ	0.35typ	
	EFFICIENCY[%] *3	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]	-20 to +60°C	75max	75max	100max	100max
		-40 to -20°C	100max	100max	120max	120max
	RIPPLE NOISE[mVp-p]	-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 1,000M 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.



- * 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