### SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>MGFS15243R3</th>
<th>MGFS152405</th>
<th>MGFS152412</th>
<th>MGFS152415</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX OUTPUT WATTAGE[W]</td>
<td>13.2</td>
<td>15.6</td>
<td>15.6</td>
<td>15</td>
</tr>
<tr>
<td>DC OUTPUT VOLTAGE[V]</td>
<td>3.3</td>
<td>5</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>CURRENT[A]</td>
<td>4</td>
<td>3</td>
<td>1.3</td>
<td>1</td>
</tr>
</tbody>
</table>

**INPUT**

- **VOLTAGE[V]**: DC9 - 36
- **CURRENT[A]**: 0.63typ, 0.71typ, 0.73typ, 0.70typ
- **EFFICIENCY[%]**: 87typ, 88typ, 89typ, 89typ

**OUTPUT**

- **VOLTAGE[V]**: 3.3, 5, 12, 15
- **CURRENT[A]**: 4, 3, 1.3, 1
- **LOAD REGULATION[mV]**: 13.2max, 20max, 48max, 60max
- **RIPPLE[mVp-p]**: 75max, 75max, 100max, 100max
- **RIPPLE NOISE[mVp-p]**: 100max, 100max, 120max, 120max
- **TEMPERATURE REGULATION[mV]**: 50max, 50max, 150max, 180max
- **DRIFT[mV]**: 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

**PROTECTION CIRCUIT AND OTHERS**

- **OVERCURRENT PROTECTION[V]**: Works over 105% of rating and recovers automatically
- **REMOTE ON/OFF**: Provided (Negative logic L:ON, H:OFF)
- **SUPPLY CURRENT[A]**: 0.32typ, 0.36typ, 0.37typ, 0.35typ
- **EFFICIENCY[%]**: 87typ, 88typ, 89typ, 89typ
- **VOLTAGE[V]**: 3.3, 5, 12, 15
- **CURRENT[A]**: 4, 3, 1.3, 1
- **LOAD REGULATION[mV]**: 13.2max, 20max, 48max, 60max
- **RIPPLE[mVp-p]**: 75max, 75max, 100max, 100max
- **RIPPLE NOISE[mVp-p]**: 100max, 100max, 120max, 120max
- **TEMPERATURE REGULATION[mV]**: 50max, 50max, 150max, 180max
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- **OUTPUT VOLTAGE ADJUSTMENT RANGE[V]**: Fixed (TRM pin open) ±10% adjustable by external VR

**PROTECTION CIRCUIT AND OTHERS**

- **OVERCURRENT PROTECTION[V]**: Works over 105% of rating and recovers automatically
- **REMOTE ON/OFF**: Provided (Negative logic L:ON, H:OFF)
## GENERAL SPECIFICATIONS

### ISOLATION

<table>
<thead>
<tr>
<th>Description</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INPUT-OUTPUT</strong></td>
<td>DC1,500V 1 minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)</td>
</tr>
<tr>
<td><strong>INPUT-CASE</strong></td>
<td>DC1,000V 1 minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)</td>
</tr>
<tr>
<td><strong>OUTPUT-CASE</strong></td>
<td>DC1,000V 1 minute, Cutoff current = 10mA, DC500V 1,000MΩ min (20±15°C)</td>
</tr>
</tbody>
</table>

### ENVIRONMENT

<table>
<thead>
<tr>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>OPERATING TEMP., HUMID., AND ALTITUDE</strong></td>
<td>-40 to +85°C, 20 to 95% RH (Non condensing) (Required Derating), 3,000m (10,000 feet) max</td>
</tr>
<tr>
<td><strong>STORAGE TEMP., HUMID., AND ALTITUDE</strong></td>
<td>-40 to +100°C, 20 to 95% RH (Non condensing), 9,000m (30,000 feet) max</td>
</tr>
<tr>
<td><strong>VIBRATION</strong></td>
<td>10 - 55Hz, 98.0 m/s² (10G), 3 minutes period, 60 minutes each along X, Y and Z axis</td>
</tr>
<tr>
<td><strong>IMPACT</strong></td>
<td>490.3 m/s² (50G), 11 ms, once each along X, Y and Z axis</td>
</tr>
</tbody>
</table>

### SAFETY AGENCY APPROVALS

- UL60950-1, C-UL, EN60950-1

### OTHERS

<table>
<thead>
<tr>
<th>Description</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>CASE SIZE/WEIGHT</strong></td>
<td>25.4 X 9.9 X 25.4 mm (W X H X D) / 20g max</td>
</tr>
<tr>
<td><strong>COOLING METHOD</strong></td>
<td>Convection/Forced air</td>
</tr>
</tbody>
</table>

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*1  MGFW15xx05/MGFW15xx12/MGFW15xx15 is available as single output, +10V/+24V/+30V
*2  Rated input 12V, 24V or 48V DC +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°C.
*5  Rated input voltage (DC24V, DC48V), rated output wattage, ambient temperature at 25°C.
*  Parallel operation with other model is not possible.

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**External view**

- **Name Plate**
- **Recommended Pad and Hole dia.**

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* 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

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1" x 1" On-board Type DC/DC Converter, 15W Cosel MGFS15 Series

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www.trcelectronics.com/cosel