## PRODUCT DATA SHEET

### 48-8108

![Diagram of 48-8108](image)

### REVISIONS

<table>
<thead>
<tr>
<th>REV</th>
<th>ECO #</th>
<th>DESCRIPTION</th>
<th>DATE</th>
<th>APPVD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>Initial Release (ES 2009/8/25)</td>
<td>2011/9/23</td>
<td>MC</td>
</tr>
</tbody>
</table>

### ORIGINATOR

<table>
<thead>
<tr>
<th>NAME</th>
<th>MECHANICAL ENGINEER</th>
<th>ELECTRICAL ENGINEER</th>
<th>MARKETING</th>
<th>APPROVED ENGINEERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES</td>
<td>2009/8/25</td>
</tr>
</tbody>
</table>

9/23/2011

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REGULATOR-RECTIFIER ASSEMBLY FOR HITACHI

KEY FEATURES – Regulator IH769
- A Circuit, Voltage Set 14.4V
- Soft start
- 2.5s LRC
- Over voltage, under voltage Lamp
- Terminal functions L-W

KEY FEATURES – Rectifier IHR769
- 8-40A Avalanche Diodes.
- Without Diode Trio

1.0 MECHANICAL CHARACTERISTICS

All dimensions are in mm and for reference only
Figure 2
### 2.0 REGULATOR PART

<table>
<thead>
<tr>
<th>PARAMETERS AND CONDITIONS</th>
<th>SYMBOLS</th>
<th>MIN.</th>
<th>TYP.</th>
<th>MAX.</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature Range</td>
<td>T&lt;sub&gt;OP&lt;/sub&gt;</td>
<td>-40</td>
<td>---</td>
<td>125</td>
<td>°C</td>
</tr>
<tr>
<td>Field</td>
<td>I&lt;sub&gt;F&lt;/sub&gt;</td>
<td>---</td>
<td>5</td>
<td>---</td>
<td>A</td>
</tr>
<tr>
<td>Voltage Set Point</td>
<td>V&lt;sub&gt;SET&lt;/sub&gt;</td>
<td>14.2</td>
<td>14.4</td>
<td>14.6</td>
<td>V</td>
</tr>
<tr>
<td>Voltage vs. Speed</td>
<td>V&lt;sub&gt;SPD&lt;/sub&gt;</td>
<td>---</td>
<td>-0.03</td>
<td>-0.05</td>
<td>V</td>
</tr>
<tr>
<td>Regulation vs. Load</td>
<td>V&lt;sub&gt;LOAD&lt;/sub&gt;</td>
<td>---</td>
<td>-0.24</td>
<td>-0.5</td>
<td>V</td>
</tr>
<tr>
<td>Saturation Voltage @ 5A, 12V</td>
<td>V&lt;sub&gt;SAT&lt;/sub&gt;</td>
<td>---</td>
<td>0.4</td>
<td>0.8</td>
<td>V</td>
</tr>
<tr>
<td>Temperature Coefficient</td>
<td>T.C.</td>
<td>---</td>
<td>-7</td>
<td>---</td>
<td>mV/°C</td>
</tr>
</tbody>
</table>

### 3.0 RECTIFIER PART

#### MAXIMUM POWER RATINGS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CHARACTERISTICS</th>
<th>SYMBOLS</th>
<th>MIN.</th>
<th>TYP.</th>
<th>MAX.</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Peak Repetitive Reverse Voltage</td>
<td>V&lt;sub&gt;RRM&lt;/sub&gt;</td>
<td>---</td>
<td>---</td>
<td>20</td>
<td>V</td>
</tr>
<tr>
<td>3.2</td>
<td>D.C. Blocking Voltage</td>
<td>V&lt;sub&gt;R&lt;/sub&gt;</td>
<td>---</td>
<td>---</td>
<td>20</td>
<td>V</td>
</tr>
<tr>
<td>3.3</td>
<td>Diode, Average Rectified Forward Current</td>
<td>I&lt;sub&gt;IO&lt;/sub&gt;</td>
<td>---</td>
<td>---</td>
<td>40</td>
<td>A</td>
</tr>
</tbody>
</table>

#### ELECTRICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>CHARACTERISTICS</th>
<th>SYMBOLS</th>
<th>MIN.</th>
<th>TYP.</th>
<th>MAX.</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4</td>
<td>Instantaneous Forward Voltage</td>
<td>V&lt;sub&gt;F&lt;/sub&gt;</td>
<td>---</td>
<td>1.05</td>
<td>1.25</td>
<td>V</td>
</tr>
<tr>
<td>3.5</td>
<td>Reverse Current @ 20V&lt;sub&gt;REV&lt;/sub&gt;</td>
<td>I&lt;sub&gt;R&lt;/sub&gt;</td>
<td>---</td>
<td>1</td>
<td>10</td>
<td>µA</td>
</tr>
<tr>
<td>3.6</td>
<td>Avalanche volts</td>
<td>V&lt;sub&gt;AVAL&lt;/sub&gt;</td>
<td>24</td>
<td>---</td>
<td>32</td>
<td>V</td>
</tr>
</tbody>
</table>

### 4.0 PINOUT

![Figure 3](image-url)