LED Power Module – Dimming and Non-dimming Solution
Solomon Systech provides a wide range of LED power modules for different applications, including MR16, GU10, E27, T-Tubes, as well as specific applications such as touch lamps and TV backlight. Our comprehensive portfolio of products support a wide range of output power from as low as 3W for MR16 up to more than 130W for street light applications. Our power modules, which feature high efficiency, high reliability and high power factor, are the ideal energy saving solutions for the growing LED lighting market.

Our Strengths
- Excellent Products – High Performance. Reliable. Enable Smart Lighting
  - High power factor, efficiency and dimmer/ballast compatibility
  - Intelligent lighting control applications
  - High reliability and quality to meet long lifetime requirements
- In house IC and LED Power Module Design Capability
  - Well experienced IC design professionals to maximize cost efficiency and enhance product performance
  - Electrical and 3D simulation model for high quality compact module design
- Meeting International Safety Requirements
  - Based on customers’ requirements, products are certified to meet international safety regulations, including RoHS, CE, etc.
- Flexible Business Model to Enhance Time to Market

LED Lighting Power Module
Solomon Systech’s LED lighting power modules - the SSM106x, SSM107x and SSM109x families are designed based on Solomon Systech’s LED lighting Driver ICs. These power modules are of high performance – highly efficient and have high power factor with an active Power Factor Correction (APFC), which simplifies the end product design. Both dimming and non-dimming LED power modules are provided to meet different market demands. High dimmer compatibility makes the end product easily accepted by consumers as a replacement for traditional lighting. Our power modules integrate various features to minimize external components and also embed sophisticated circuit protection schemes for safety and easy design.

Applications
Retrofit Lighting, Industrial Lighting, Smart Lighting, LED TV/Monitor Backlight, etc.
LED Lighting Driver ICs
Solomon Systech’s LED lighting Driver ICs – SSD107x families offer highly efficient constant current source with a wide input voltage range for LED lighting, as well as high power factor which simplifies the end product design. Apart from various dimming algorithms and high dimmer compatibility, the products also integrate different features to minimize external components.

Selection Guide

<table>
<thead>
<tr>
<th>Part Number</th>
<th>SSM1071M</th>
<th>SSM1072 HHS</th>
<th>SSM1077G</th>
<th>SSM1078 SQF/G/HJ</th>
<th>SSM1098T</th>
<th>SSM1090A/SSM1091M</th>
<th>SSM1093E/SSM1095G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input voltage</td>
<td>8-18 V&lt;sub&gt;AD&lt;/sub&gt;</td>
<td>90~305 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>90~264 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>90~264 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>90~264 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>8-18 V&lt;sub&gt;AD&lt;/sub&gt;</td>
<td>180~264 V&lt;sub&gt;AC&lt;/sub&gt;</td>
</tr>
<tr>
<td>Output power</td>
<td>3~6.8W</td>
<td>130W</td>
<td>6.5W</td>
<td>12W~39W</td>
<td>10~20W</td>
<td>7.2W</td>
<td>9.6~12W</td>
</tr>
<tr>
<td>Output current</td>
<td>300~900mA</td>
<td>2.1~2.8A</td>
<td>350~500mA</td>
<td>350~1100mA</td>
<td>210~420mA</td>
<td>300mA</td>
<td>240~450mA</td>
</tr>
<tr>
<td>Output voltage</td>
<td>6~9.6V</td>
<td>23~61V</td>
<td>8~10V</td>
<td>15~41V</td>
<td>36~48V</td>
<td>24V</td>
<td>30~40V</td>
</tr>
<tr>
<td>Efficiency</td>
<td>&gt;80%</td>
<td>&gt;90%</td>
<td>&gt;90%</td>
<td>&gt;83%</td>
<td>&gt;88%</td>
<td>&gt;80%</td>
<td>&gt;80%</td>
</tr>
<tr>
<td>Power factor</td>
<td>&gt;0.5</td>
<td>&gt;0.96</td>
<td>&gt;0.9</td>
<td>&gt;0.9</td>
<td>&gt;0.95</td>
<td>&gt;0.8</td>
<td>&gt;0.97</td>
</tr>
<tr>
<td>Isolation</td>
<td>N/A</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>N/A</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Safety
- Over temperature protection / LED short circuit protection / LED open circuit protection
- SCR-dimmable
- SCR dimmable

Dimming features
- Non-dimmable
- PWM/resistance 3-in-1/0-10V
- SCR-dimmable
- Non-dimmable
- Non-dimmable
- SCR-dimmable
- SCR dimmable

CE compliance
- EN55015, EN61000-3-2, EN61000-3-3, EN61000-3-4, EN61547
- CE Certified
- EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-4, EN61547
- EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-4, EN61547
- EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-4, EN61547
- EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-4, EN61547

Applications
- MR16/Table lamp/Fish Tank
- High power Industrial Highbay
- Dimmable MR16
- Panel light, Downlight
- T8/T10 Tube
- AR111/MR16 Buck Boost
- Dimmable GU10/E27

Solomon Systech Limited
Solomon Systech (International) Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

Sales Contact

<table>
<thead>
<tr>
<th>Country</th>
<th>Office</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>Solomon Systech Limited (Head Office)</td>
<td>852-2207 1111</td>
<td><a href="mailto:sales@solomon-systech.com">sales@solomon-systech.com</a></td>
</tr>
<tr>
<td>Shenzhen</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-755-8616 9900</td>
<td><a href="mailto:sales_sh@solomon-systech.com">sales_sh@solomon-systech.com</a></td>
</tr>
<tr>
<td>Shanghai</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-21-5836 3151 / 86-22-8823 3639</td>
<td><a href="mailto:sales_nch@solomon-systech.com">sales_nch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Beijing</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-10-8766 5497 / 5498</td>
<td><a href="mailto:sales_nch@solomon-systech.com">sales_nch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Taiwan</td>
<td>Solomon Systech Taiwan Limited</td>
<td>886-3572 0660</td>
<td><a href="mailto:sales_tw@solomon-systech.com">sales_tw@solomon-systech.com</a></td>
</tr>
<tr>
<td>Singapore</td>
<td>Solomon Systech Pte. Ltd.</td>
<td>65-6255 5225</td>
<td><a href="mailto:sales_sea@solomon-systech.com">sales_sea@solomon-systech.com</a></td>
</tr>
<tr>
<td>Japan</td>
<td>Solomon Systech Japan Co., Ltd.</td>
<td>81-3-6809 5163</td>
<td><a href="mailto:sales_jpn@solomon-systech.com">sales_jpn@solomon-systech.com</a></td>
</tr>
<tr>
<td>USA</td>
<td>Solomon Systech Inc.</td>
<td>1-408-3201329</td>
<td><a href="mailto:sales_usa@solomon-systech.com">sales_usa@solomon-systech.com</a></td>
</tr>
<tr>
<td>Europe</td>
<td>Solomon Europe Limited</td>
<td>49-0-6174 619892 / 49-0-172 6734354</td>
<td><a href="mailto:sales_eur@solomon-systech.com">sales_eur@solomon-systech.com</a></td>
</tr>
<tr>
<td>South Korea</td>
<td>Solomon Electronics Co., Ltd. (Authorized Representative)</td>
<td>82-2-3445 8011</td>
<td><a href="mailto:sales_kor@solomon-systech.com">sales_kor@solomon-systech.com</a></td>
</tr>
</tbody>
</table>
The SSM1071SSCD series is an application specific LED driver module for intelligent lighting. It has built-in smart dimming function, with two individual output channels driving two respective groups of LEDs for different brightness and colour temperature effects. The output current of the two channels are controlled by two separate rows of finger touch sensors.

### Features
- **Input Voltage**: 11 ~ 14V<sub>DC</sub>
- **Constant Current Output**: 2 Channels x 600mA
- **Output Voltage**: 9 ~ 10V
- **Output Power**: 6 + 6W
- **System Efficiency**: ~85%
- **Lifespan**: 30,000 Hours @ T<sub>A</sub> = 25°C
- **OTP, LED open-circuit protection, LED short-circuit protection**
- **Touch Input**:
  - Colour Temperature Selection: 32 Levels
  - Brightness Selection: 24 Levels
- **LED Indicators**: 2 Groups x 7 LEDs
- **Smart Night Light Mode**:
  - Turn on Indicator LEDs only
  - Power Consumed <0.2W
- **Sleep Mode**:
  - Power Consumed <0.1W
- **Compliance to CE standards**:
  - EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-5, EN61547
- **Compliance to RoHS**

### Application
- **Colour Temperature / Brightness Controllable Table Lamp**
- **Fish Tank Lighting**
The output power for each channel, when dimming at maximum brightness, will be 6W. As the colour temperature control system will not maximize the two outputs at the same time, the ideal 12W total output power will never be achieved.

Solomon Systech Limited

Solomon Systech (International) Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

Sales Contact

<table>
<thead>
<tr>
<th>Location</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>Solomon Systech Limited (Head Office) 852-2207 1111 <a href="mailto:sales@solomon-systech.com">sales@solomon-systech.com</a></td>
</tr>
<tr>
<td>Shenzhen</td>
<td>Solomon Systech (Shenzhen) Limited 86-755-8616 8900 <a href="mailto:sales_sch@solomon-systech.com">sales_sch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Shanghai</td>
<td>Solomon Systech (Shenzhen) Limited 86-21-5836 3151 / 86-22-8823 3639 <a href="mailto:sales_nch@solomon-systech.com">sales_nch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Beijing</td>
<td>Solomon Systech (Shenzhen) Limited 86-10-8766 5497 / 5498 <a href="mailto:sales_nch@solomon-systech.com">sales_nch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Taiwan</td>
<td>Solomon Systech Taiwan Limited 886-3572 0660 <a href="mailto:sales_twn@solomon-systech.com">sales_twn@solomon-systech.com</a></td>
</tr>
<tr>
<td>Singapore</td>
<td>Solomon Systech Pte. Ltd. 65-6255 5225 <a href="mailto:sales_sea@solomon-systech.com">sales_sea@solomon-systech.com</a></td>
</tr>
<tr>
<td>Japan</td>
<td>Solomon Systech Japan Co., Ltd. 81-3-6809 5163 <a href="mailto:sales_jpn@solomon-systech.com">sales_jpn@solomon-systech.com</a></td>
</tr>
<tr>
<td>USA</td>
<td>Solomon Systech Inc. 1-408-3201329 <a href="mailto:sales_usa@solomon-systech.com">sales_usa@solomon-systech.com</a></td>
</tr>
<tr>
<td>Europe</td>
<td>Solomon Europe Limited (Authorized Representative) 49-0-6174 619892 / (M) 49-0-172 8734354 <a href="mailto:sales_eur@solomon-systech.com">sales_eur@solomon-systech.com</a></td>
</tr>
<tr>
<td>South Korea</td>
<td>Solomon Electronics Co., Ltd. (Authorized Representative) 82-2-3445 8011 <a href="mailto:sales_kor@solomon-systech.com">sales_kor@solomon-systech.com</a></td>
</tr>
</tbody>
</table>

© Copyright 2013 | Sep 2013

www.solomon-systech.com solutions in silicon
**SSM1071M** is a series of constant current internal LED power modules targeting MR16 (GU5.3) spotlight applications. These power modules are highly compact, safe and reliable, and with high efficiency and long operation life.

### Features
- **Input Voltage:** 8 ~ 18V AC/DC
- **Constant Current Output:** 300 ~ 900mA
- **Output Voltage:** 6 ~ 9.6V
- **Output Power:** up to 6.8W
- **System Efficiency:** 80%
- **Compact Size** for most MR16 (GU5.3) applications
- **Lifespan:** 30,000 Hours @ $T_A = 25^\circ$C
- **Operating Temperature:** -20 ~ 60°C
- **OTP, LED open-circuit protection, LED short-circuit protection**
- **Compliance to CE standards:** EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-5, EN61547
- **Compliance to RoHS**

### Applications
- **MR16 (GU5.3) Spotlight**
- **Internal Application**

### Dimensions

Cross – Sectional View
LED Power Module

### SSM1071M Standard Series

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Output Power</th>
<th>System Efficiency</th>
<th>Special Features</th>
<th>Package &amp; Dimensions</th>
<th>Reference LED Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1071MCD6</td>
<td>12~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>9~9.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>320mA</td>
<td>3.0W</td>
<td>80%</td>
<td>OTP, OVP, SCP</td>
<td>PCBA (30.7 x 18.4 x 16)</td>
<td>3S (1W)</td>
</tr>
<tr>
<td>SSM1071MCD7</td>
<td>8~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>6~6.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>510mA</td>
<td>3.3W</td>
<td>80%</td>
<td></td>
<td>252P (1W)</td>
<td></td>
</tr>
<tr>
<td>SSM1071MCD5</td>
<td>12~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>9~9.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>400mA</td>
<td>3.6W</td>
<td>80%</td>
<td></td>
<td>3S (1W)</td>
<td></td>
</tr>
<tr>
<td>SSM1071MCD2</td>
<td>12~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>9~9.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>450mA</td>
<td>4.3W</td>
<td>80%</td>
<td></td>
<td>3S (1W)</td>
<td></td>
</tr>
<tr>
<td>SSM1071MCD8</td>
<td>8~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>6~6.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>800mA</td>
<td>5.2W</td>
<td>80%</td>
<td>OTP, OVP, SCP, Enhanced Ballast Compatibility</td>
<td>252P (2W)</td>
<td></td>
</tr>
<tr>
<td>SSM1071MCE1</td>
<td>8~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>6~6.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>800mA</td>
<td>5.2W</td>
<td>78%</td>
<td></td>
<td>252P (2W)</td>
<td></td>
</tr>
<tr>
<td>SSM1071MCE2</td>
<td>8~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>6~6.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>900mA</td>
<td>5.9W</td>
<td>80%</td>
<td></td>
<td>252P (2W)</td>
<td></td>
</tr>
<tr>
<td>SSM1071MCE3</td>
<td>12~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>8.7~9.3V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>735mA</td>
<td>6.8W</td>
<td>80%</td>
<td></td>
<td>3S (2W)</td>
<td></td>
</tr>
</tbody>
</table>

### SSM1071M Compact Series

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Output Power</th>
<th>System Efficiency</th>
<th>Special Features</th>
<th>Package &amp; Dimensions</th>
<th>Reference LED Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1071MGA4</td>
<td>12~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>9~9.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>320mA</td>
<td>3.0W</td>
<td>80%</td>
<td>OTP, OVP, SCP</td>
<td>PCBA (26 x 18.4 x 16)</td>
<td>3S (1W)</td>
</tr>
<tr>
<td>SSM1071MGA7</td>
<td>8~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>6~6.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>510mA</td>
<td>3.3W</td>
<td>78%</td>
<td></td>
<td>252P (1W)</td>
<td></td>
</tr>
<tr>
<td>SSM1071MGA5</td>
<td>12~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>9~9.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>410mA</td>
<td>3.8W</td>
<td>80%</td>
<td></td>
<td>3S (1W)</td>
<td></td>
</tr>
<tr>
<td>SSM1071MGA8</td>
<td>8~18 V&lt;sub&gt;AC&lt;/sub&gt;</td>
<td>6~6.6V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>830mA</td>
<td>4.3W</td>
<td>78%</td>
<td></td>
<td>252P (1W)</td>
<td></td>
</tr>
</tbody>
</table>

---

**Solomon Systech Limited**

Solomon Systech (International) Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

**Sales Contact**

- **Hong Kong**
  - Solomon Systech Limited (Head Office)
  - 852-2207 1111
  - sales@solomon-systech.com

- **Shenzhen**
  - Solomon Systech (Shenzhen) Limited
  - 86-755-8616 9900
  - sales_sch@solomon-systech.com

- **Shanghai**
  - Solomon Systech (Shenzhen) Limited
  - 86-21-5838 3151 / 86-22-8823 3639
  - sales_rch@solomon-systech.com

- **Beijing**
  - Solomon Systech (Shenzhen) Limited
  - 86-10-8766 5497 / 5498
  - sales_rch@solomon-systech.com

- **Taiwan**
  - Solomon Systech Taiwan Limited
  - 886-3572 0660
  - sales_twm@solomon-systech.com

- **Singapore**
  - Solomon Systech Pte. Ltd.
  - 65-6255 5225
  - sales_sea@solomon-systech.com

- **Japan**
  - Solomon Systech Japan Co., Ltd.
  - 81-3-8809 5163
  - sales_jpm@solomon-systech.com

- **USA**
  - Solomon Systech Inc.
  - 1-408-3201329
  - sales_usa@solomon-systech.com

- **Europe**
  - Solomon Europe Limited (Authorized Representative)
  - 49-0-6174 619882 / 49-0-172 6734354
  - sales_eur@solomon-systech.com

- **South Korea**
  - Solomon Electronics Co., Ltd. (Authorized Representative)
  - 82-2-3445 8011
  - sales_kor@solomon-systech.com

© Copyright 2013 | Sep 2013

www.solomon-systech.com | solutions in silicon
SSM1062T/1098T are series of constant current internal LED power modules targeting T8/T10 tube light applications. These power modules are highly compact, safe and reliable, and with high efficiency and long operation life.

**Features**
- Input Voltage: 90 ~ 264V AC
- Constant Current Output: 210 / 380 / 420mA
- Output Voltage: 36 ~ 48V
- Output Power: up to 20W
- System Efficiency: 88%
- Power Factor: 0.9
- Current Accuracy: ± 5%
- Isolation / Non-Isolation Design
- Compact Size for most of the T8 / T10
- Lifespan: 30,000 Hours @ T_A = 25°C
- Operating Temperature: -20 ~ 60°C
- OTP, LED open-circuit protection, LED short-circuit protection
- Compliance to CE standards:
  - EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-5, EN61547
- Compliance to RoHS

**Applications**
- T8/T10 LED Tube Light
- Internal Application

**Dimensions**

**Cross – Sectional View**
### SSM1078T Isolation Series

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1098TCC1</td>
<td>90~264 VAC</td>
<td>40~48VDC</td>
<td>210mA</td>
<td>10W</td>
<td>85%</td>
<td>0.9</td>
<td>Yes</td>
<td>OTP, OVP, SCP, Surge ≥ 1kV</td>
<td>PCBA (208.5 x 17.5 x 11)</td>
<td>14ST7 (0.1W)</td>
</tr>
<tr>
<td>SSM1098TCC2</td>
<td>90~264 VAC</td>
<td>40~48VDC</td>
<td>380mA</td>
<td>18W</td>
<td>85%</td>
<td>0.9</td>
<td>Yes</td>
<td>OTP, OVP, SCP, Surge ≥ 1kV</td>
<td>PCBA (160 x 17.5 x 11)</td>
<td>14ST7 (0.1W)</td>
</tr>
<tr>
<td>SSM1098TCC3</td>
<td>90~264 VAC</td>
<td>40~48VDC</td>
<td>420mA</td>
<td>20W</td>
<td>85%</td>
<td>0.9</td>
<td>Yes</td>
<td>OTP, OVP, SCP, Surge ≥ 1kV</td>
<td>PCBA (208.5 x 17.5 x 11)</td>
<td>14ST7 (0.1W)</td>
</tr>
</tbody>
</table>

### SSM1062T Non-isolation Series

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1062TCC1</td>
<td>90~264 VAC</td>
<td>36~45VDC</td>
<td>210mA</td>
<td>10W</td>
<td>88%</td>
<td>0.9</td>
<td>No</td>
<td>OTP, OVP, SCP, Surge ≥ 1kV</td>
<td>PCBA (160 x 17.5 x 11)</td>
<td>14ST7 (0.1W)</td>
</tr>
<tr>
<td>SSM1062TCC2</td>
<td>90~264 VAC</td>
<td>36~45VDC</td>
<td>380mA</td>
<td>18W</td>
<td>88%</td>
<td>0.9</td>
<td>No</td>
<td>OTP, OVP, SCP, Surge ≥ 1kV</td>
<td>PCBA (160 x 17.5 x 11)</td>
<td>14ST7 (0.1W)</td>
</tr>
<tr>
<td>SSM1062TCC3</td>
<td>90~264 VAC</td>
<td>36~45VDC</td>
<td>420mA</td>
<td>20W</td>
<td>88%</td>
<td>0.9</td>
<td>No</td>
<td>OTP, OVP, SCP, Surge ≥ 1kV</td>
<td>PCBA (160 x 17.5 x 11)</td>
<td>14ST7 (0.1W)</td>
</tr>
</tbody>
</table>

### Solomon Systech Limited

Solomon Systech (International) Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

### Sales Contact

<table>
<thead>
<tr>
<th>Location</th>
<th>Contact Information</th>
<th>Phone</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>Solomon Systech Limited (Head Office)</td>
<td>852-2207 1111</td>
<td><a href="mailto:sales@solomon-systech.com">sales@solomon-systech.com</a></td>
</tr>
<tr>
<td>Shenzhen</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-755-8616 9900</td>
<td><a href="mailto:sales_sch@solomon-systech.com">sales_sch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Shanghai</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-21-5836 3151 / 86-22-8823 3639</td>
<td><a href="mailto:sales_nch@solomon-systech.com">sales_nch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Beijing</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-10-8766 5497 / 5498</td>
<td><a href="mailto:sales_nch@solomon-systech.com">sales_nch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Taiwan</td>
<td>Solomon Systech Taiwan Limited</td>
<td>886-3572 0660</td>
<td><a href="mailto:sales_twn@solomon-systech.com">sales_twn@solomon-systech.com</a></td>
</tr>
<tr>
<td>Singapore</td>
<td>Solomon Systech Pte. Ltd.</td>
<td>65-6255 5225</td>
<td><a href="mailto:sales_sea@solomon-systech.com">sales_sea@solomon-systech.com</a></td>
</tr>
<tr>
<td>Japan</td>
<td>Solomon Systech Japan Co., Ltd.</td>
<td>81-3-6809 5163</td>
<td><a href="mailto:sales_jpm@solomon-systech.com">sales_jpm@solomon-systech.com</a></td>
</tr>
<tr>
<td>USA</td>
<td>Solomon Systech Inc.</td>
<td>1-408-3201329</td>
<td><a href="mailto:sales_usa@solomon-systech.com">sales_usa@solomon-systech.com</a></td>
</tr>
<tr>
<td>Europe</td>
<td>Solomon Europe Limited (Authorized Representative)</td>
<td>49-0-6174 619892 / (M) 49-0-172 6734354</td>
<td><a href="mailto:sales_eur@solomon-systech.com">sales_eur@solomon-systech.com</a></td>
</tr>
<tr>
<td>South Korea</td>
<td>Solomon Electronics Co., Ltd. (Authorized Representative)</td>
<td>82-2-3445 8011</td>
<td><a href="mailto:sales_kor@solomon-systech.com">sales_kor@solomon-systech.com</a></td>
</tr>
</tbody>
</table>
SSM1078SQF/G/H are series of constant current external LED power modules targeting panel light and downlight applications. These power modules are highly compact, safe and reliable, and with high efficiency and long operation life.

Features
- Input Voltage: 100 ~ 240VAC
- Constant Current Output: 350 ~ 1100mA
- Output Voltage: 15 ~ 41V
- Output Power: up to 39W
- System Efficiency: up to 88%
- Power Factor: 0.9
- Isolation Design
- Lifespan: 30,000 Hours @ T_A = 25℃
- Operating Temperature: -20 ~ 45℃
- OTP, LED open-circuit protection, LED short-circuit protection
- Compliance to RoHS

Applications
- Panel Light
- Downlight

Dimensions

Plan View Installation Dimensions
# Green Power

## LED Power Module

### CE Certified Low Ripple Series

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1078SQF5</td>
<td>16-28Vdc</td>
<td>400mA</td>
<td>12W</td>
<td></td>
<td>83%</td>
<td>0.9</td>
<td>Yes</td>
<td>OTP, OVP, SCP, Hi-Pot ≥3.75kV, Surge ≥ 2kV, Output Ripple Current &lt; 40%</td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>75 (2W)</td>
</tr>
<tr>
<td>SSM1078SQF1</td>
<td>16-28Vdc</td>
<td>350mA</td>
<td>14W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>95 (2W)</td>
</tr>
<tr>
<td>SSM1078SQF6</td>
<td>15-29Vdc</td>
<td>550mA</td>
<td>19W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>10S (2W)</td>
</tr>
<tr>
<td>SSM1078SQF4</td>
<td>15-29Vdc</td>
<td>700mA</td>
<td>20W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>95 (2W)</td>
</tr>
<tr>
<td>SSM1078SQF2</td>
<td>15-29Vdc</td>
<td>725mA</td>
<td>20W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>12S (2W)</td>
</tr>
<tr>
<td>SSM1078SQF3</td>
<td>15-29Vdc</td>
<td>550mA</td>
<td>21W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>12S (3W)</td>
</tr>
<tr>
<td>SSM1078SQG6</td>
<td>15-29Vdc</td>
<td>800mA</td>
<td>32W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>12S (3W)</td>
</tr>
<tr>
<td>SSM1078SQG4</td>
<td>15-29Vdc</td>
<td>900mA</td>
<td>36W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>11S (3W)</td>
</tr>
</tbody>
</table>

### CE Certified Standard Series

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1078SH5</td>
<td>16-28Vdc</td>
<td>450mA</td>
<td>12W</td>
<td></td>
<td>82%</td>
<td>0.9</td>
<td>Yes</td>
<td>OTP, OVP, SCP, Hi-Pot ≥3.75kV, Surge ≥ 500V</td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>75 (2W)</td>
</tr>
<tr>
<td>SSM1078SH1</td>
<td>16-28Vdc</td>
<td>350mA</td>
<td>14W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>13S (1W)</td>
</tr>
<tr>
<td>SSM1078SH6</td>
<td>15-29Vdc</td>
<td>550mA</td>
<td>19W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>10S (2W)</td>
</tr>
<tr>
<td>SSM1078SH4</td>
<td>15-29Vdc</td>
<td>700mA</td>
<td>20W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>9S (2W)</td>
</tr>
<tr>
<td>SSM1078SH2</td>
<td>15-29Vdc</td>
<td>725mA</td>
<td>20W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>9S (2W)</td>
</tr>
<tr>
<td>SSM1078SH3</td>
<td>15-29Vdc</td>
<td>1100mA</td>
<td>39W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Plastic Case (137 x 40 x 30)</td>
<td>9S (2W)</td>
</tr>
</tbody>
</table>

### Solomon Systech Limited

Solomon Systech (International) Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

#### Sales Contact

- **Hong Kong**
  - Solomon Systech Limited (Head Office)
  - 852-2207 1111
  - sales@solomon-systech.com
- **Shenzhen**
  - Solomon Systech (Shenzhen) Limited
  - 86-755-8616 9900
  - sales_sh@solomon-systech.com
- **Shanghai**
  - Solomon Systech (Shenzhen) Limited
  - 86-21-5836 3151 / 86-22-8823 3639
  - sales_nch@solomon-systech.com
- **Beijing**
  - Solomon Systech (Shenzhen) Limited
  - 86-10-8766 5497 / 5498
  - sales_nch@solomon-systech.com
- **Taiwan**
  - Solomon Systech Taiwan Limited
  - 886-3572 0660
  - sales_tw@solomon-systech.com
- **Singapore**
  - Solomon Systech Pte. Ltd.
  - 65-6255 5225
  - sales_sea@solomon-systech.com
- **Japan**
  - Solomon Systech Japan Co., Ltd.
  - 81-3-6809 5163
  - sales_jp@solomon-systech.com
- **USA**
  - Solomon Systech Inc.
  - 1-408-3201329
  - sales_usa@solomon-systech.com
- **Europe**
  - Solomon Europe Limited
  - 49-0-6174 61982 / M 49-0-172 6734354
  - sales_eur@solomon-systech.com
- **South Korea**
  - Solomon Electronics Co., Ltd.
  - 82-2-3445 8011
  - sales_kor@solomon-systech.com

© Copyright 2013 | Sep 2013

www.solomon-systech.com

solutions in silicon
LED Power Module

SSM1095/97 are series of constant current internal LED power modules targeting light bulb or PAR spotlight applications. These power modules are highly compact, safe and reliable, and with high efficiency and long operation life.

Features

- Input Voltage: 90 ~ 264VAC
- Constant Current Output: 350 ~ 500mA
- Output Voltage: 8 ~ 10V
- Output Power: 6.5W
- System Efficiency: 83%
- Power Factor: 0.9
- Isolation Design
- Compact Size to Fit GU10 / E27 Cap-base for Spotlight / Light Bulb / PAR Applications
- Lifespan: 30,000 Hours @ TA = 25°C
- Operating Temperature: -20 ~ 60°C
- OTP, LED open-circuit protection, LED short-circuit protection
- Compliance to CE standards: EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-5, EN61547
- Compliance to RoHS

Applications

- MR16 (GU10) Spotlight
- A19 Light Bulb
- PAR20 Spotlight

Dimensions

Cross – Sectional View
**SCR-Dimmable Series**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Output Power</th>
<th>System Efficiency</th>
<th>Power Factor</th>
<th>Isolation</th>
<th>Special Features</th>
<th>Package &amp; Dimensions</th>
<th>Reference LED Config</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1095GDCB1</td>
<td>90–264 VAC</td>
<td>8–11 VDC</td>
<td>500mA</td>
<td>6.5W</td>
<td>70%</td>
<td>0.9</td>
<td>Yes</td>
<td>OTP, OVP, SCP, SCR Dimmable</td>
<td>PCBA (30 x 20 x 22)</td>
<td>3S (2W)</td>
</tr>
</tbody>
</table>

- SCR Dimmable support Phrase-cut Dimmers (High-line dimmers only)

**Standard Series**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Output Power</th>
<th>System Efficiency</th>
<th>Power Factor</th>
<th>Isolation</th>
<th>Special Features</th>
<th>Package &amp; Dimensions</th>
<th>Reference LED Config</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1097GCC1</td>
<td>90–264 VAC</td>
<td>8–11 VDC</td>
<td>500mA</td>
<td>6.5W</td>
<td>75%</td>
<td>0.9</td>
<td>Yes</td>
<td>OTP, OVP, SCP</td>
<td>PCBA (30 x 20 x 22)</td>
<td>3S (2W)</td>
</tr>
</tbody>
</table>

**Solomon Systech Limited**

Solomon Systech (International) Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

**Sales Contact**

- **Hong Kong**
  Solomon Systech Limited (Head Office)
  852-2207 1111
  sales@solomon-systech.com
- **Shenzhen**
  Solomon Systech (Shenzhen) Limited
  86-755-8616 9900
  sales_sch@solomon-systech.com
- **Shanghai**
  Solomon Systech (Shenzhen) Limited
  86-21-5836 3151 / 86-22-8823 3639
  sales_nch@solomon-systech.com
- **Beijing**
  Solomon Systech (Shenzhen) Limited
  86-10-8766 5497 / 5488
  sales_nch@solomon-systech.com
- **Taiwan**
  Solomon Systech Taiwan Limited
  886-3572 0660
  sales_tw@solomon-systech.com
- **Singapore**
  Solomon Systech Pte. Ltd.
  65-6255 5225
  sales_soa@solomon-systech.com
- **Japan**
  Solomon Systech Japan Co., Ltd.
  81-3-6809 5163
  sales_jpn@solomon-systech.com
- **USA**
  Solomon Systech Inc.
  1-408-3201329
  sales_usa@solomon-systech.com
- **Europe**
  Solomon Europe Limited
  49-0-8174 619392 / (M) 49-0-172 6734354
  sales_eur@solomon-systech.com
- **South Korea**
  Solomon Electronics Co., Ltd.
  (Authorized Representative)
  82-2-3445 8011
  sales_kor@solomon-systech.com

© Copyright 2013 | Sep 2013

www.solomon-systech.com

solutions in silicon
LED Power Module

In addition to LED power modules for general applications such as MR16, GU10, E27, T-Tubes, etc., Solomon Systech Limited has also developed LED power modules, including AC-DC drivers and DC-DC drivers, for specific applications.

Features
- AC-DC / DC-DC Driver
- Constant Current Output: 400 ~ 600mA
- Output Voltage: 9 ~ 63V
- Output Power: 23W ~ 38W
- System Efficiency: 90 ~ 95%
- Power Factor: 0.85
- Isolation / Non-Isolation Design
- Lifespan: 30,000 Hours @ TA = 25°C
- Operating Temperature: -20 ~ 60°C
- OTP, LED open-circuit protection, LED short-circuit protection
- Compliance to CE standards:
  - EN55015, EN61000-3-2, EN61000-3-3, EN61000-4-5, EN61547
- Compliance to RoHS

Applications

Panel Light

Multi-Channel Street Light
LED Power Module

AC-DC Drivers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Output Power</th>
<th>System Efficiency</th>
<th>Power Factor</th>
<th>Isolation</th>
<th>Special Features</th>
<th>Package &amp; Dimensions</th>
<th>Reference LED Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM-C63SA038ZF-SA</td>
<td>176–264 VAC</td>
<td>36–63Vdc</td>
<td>600mA</td>
<td>38W</td>
<td>90%</td>
<td>0.85</td>
<td>No</td>
<td>OTP, OVP</td>
<td>PCB (85 x 55 x 22)</td>
<td>18S (2W)</td>
</tr>
</tbody>
</table>

DC-DC Drivers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Input Voltage</th>
<th>Output Voltage</th>
<th>Output Current</th>
<th>Output Power</th>
<th>System Efficiency</th>
<th>Special Features</th>
<th>Package &amp; Dimensions</th>
<th>Reference LED Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM1071SGB1</td>
<td>22–30 Vdc</td>
<td>3 Channels 18–20Vdc</td>
<td>400mA</td>
<td>24W</td>
<td>95%</td>
<td>OTP, OVP for emptied channels</td>
<td>PCB (72 x 48 x 15)</td>
<td>3 Ch. 6S (1W)</td>
</tr>
</tbody>
</table>

Solomon Systech Limited

Solomon Systech (International) Limited is a leading semiconductor company providing IC products and system solutions that enable a wide range of display applications for smartphones, smart TVs, smart projectors and other smart devices including consumer electronics products, portable devices, industrial appliances and green energy applications such as LED lighting.

Sales Contact

<table>
<thead>
<tr>
<th>Country</th>
<th>Address</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong</td>
<td>Solomon Systech Limited (Head Office)</td>
<td>852-2207 1111</td>
<td><a href="mailto:sales@solomon-systech.com">sales@solomon-systech.com</a></td>
</tr>
<tr>
<td>Shenzhen</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-755-8616 9900</td>
<td><a href="mailto:sales_sch@solomon-systech.com">sales_sch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Shanghai</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-21-5836 3151 / 86-22-8823 3639</td>
<td><a href="mailto:sales_nch@solomon-systech.com">sales_nch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Beijing</td>
<td>Solomon Systech (Shenzhen) Limited</td>
<td>86-10-8766 5497 / 5498</td>
<td><a href="mailto:sales_nch@solomon-systech.com">sales_nch@solomon-systech.com</a></td>
</tr>
<tr>
<td>Taiwan</td>
<td>Solomon Systech Taiwan Limited</td>
<td>886-3572 0660</td>
<td><a href="mailto:sales_tw@solomon-systech.com">sales_tw@solomon-systech.com</a></td>
</tr>
<tr>
<td>Singapore</td>
<td>Solomon Systech Pte. Ltd.</td>
<td>65-6255 5225</td>
<td><a href="mailto:sales_sea@solomon-systech.com">sales_sea@solomon-systech.com</a></td>
</tr>
<tr>
<td>Japan</td>
<td>Solomon Systech Japan Co., Ltd.</td>
<td>81-3-6809 5163</td>
<td><a href="mailto:sales_jpm@solomon-systech.com">sales_jpm@solomon-systech.com</a></td>
</tr>
<tr>
<td>USA</td>
<td>Solomon Systech Inc.</td>
<td>1-408-3201329</td>
<td><a href="mailto:sales_usa@solomon-systech.com">sales_usa@solomon-systech.com</a></td>
</tr>
<tr>
<td>Europe</td>
<td>Solomon Europe Limited (Authorized Representative)</td>
<td>49-0-6174 619892 / (M) 49-0-172 6734354</td>
<td><a href="mailto:sales_eur@solomon-systech.com">sales_eur@solomon-systech.com</a></td>
</tr>
<tr>
<td>South Korea</td>
<td>Solomon Electronics Co., Ltd. (Authorized Representative)</td>
<td>82-2-3445 8011</td>
<td><a href="mailto:sales_kor@solomon-systech.com">sales_kor@solomon-systech.com</a></td>
</tr>
</tbody>
</table>