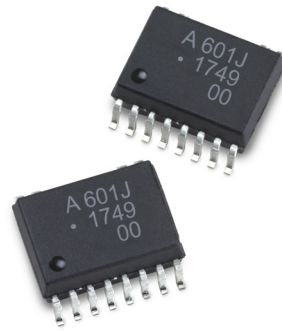


### Product Brief



### Description

The Broadcom<sup>®</sup> ASSR-601J product family is a high voltage photo mosfet relay ideal for Industrial and Automotive applications. It is used to replace the conventional electromechanical relay with improved lifetime reliability. This solid-state relay has a high breakdown voltage of more than 1500V and wide 5-mm creepage across output contacts. In addition, it has an ultra low off-state leakage current of less than 1 $\mu$ A that enables accurate insulation resistance measurement.

The ASSR-601J product family is equivalent to 1 Form A electromechanical relay (EMR) and is available in 16-pin SOIC package. It can be used in industrial resistance measurement applications, such as battery management system (BMS), solar PV panel ground fault monitoring, EV charging system, and motor winding leakage current detection. Other applications include inrush current limiter protection in motor drives system.

### Availability

The ASSR-601Jx product family is available in August 2017. Samples are available upon direct sales channel and through worldwide distribution partners. Please contact your local Broadcom sales representative for samples and pricing.

For further information, please visit:  
<http://www.broadcom.com/products>

### Preliminary Features

- Compact solid-state bi-directional signal switch
- Qualified to AEC-Q101 Test Guidelines (Automotive)
- Industrial grade operating temperature range: -40°C to +110°C / +125°C (automotive)
- Breakdown voltage,  $V_{O(OFF)}$ : 1500V @  $I_O = 0.25$  mA
- Avalanche rated MOSFETs
- Output leakage current,  $I_O < 1$   $\mu$ A @  $V_O = 1000$ V
- On-resistance,  $R_{ON} < 250$  Ohms @  $I_O = 50$  mA
- Turn On Time:  $T_{ON} < 4$  ms
- Turn Off Time:  $T_{OFF} < 0.5$  ms
- Package: 300 mil SO-16
- Creepage and clearance  $\geq 8$  mm (input-output)
- Creepage  $> 5$  mm (between drain pins of MOSFETs)
- CTI  $> 600$ V mold compound
- Safety and regulatory approvals :
  - IEC/EN/DIN EN 60747-5-5
  - Maximum working insulation voltage 1414  $V_{PEAK}$
  - 5000  $V_{RMS}$  for 1 minute per UL1577
  - CSA Component Acceptance

### Applications

- Inrush current limiter for inverter and servo drives
- Insulation resistance measurement for solar panel systems, EV charging station, BMS, and motor-earth leakage current
- Electromechanical relay replacement



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For product information and a complete list of distributors, please go to our web site: [www.broadcom.com](http://www.broadcom.com).

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