

ASSR Series

Solid State Relay with MOSFET Outputs

Applications

- **Telecommunications Switching**
- **Data Communications**
- **Industrial Controls**
- **Medical**
- **Security**
- **Automatic Test Equipment**
- **Data Acquisition System**
- **Measuring Instruments**
- **EMR/Reed Relay Replacement**

The ASSR Series solid state relays consist of high-speed, photovoltaic FET driver circuitry with an efficient turn-off circuit, optically coupled with light emitting diodes (LEDs) and a pair of high-voltage MOSFETs outputs. The relays turn on (contact closed) with a minimum input current of 3 mA, through the input LED. The relays turn off (contact opened) with an input voltage of 0.8 V or less.

These solid state relays are superior to traditional electro-mechanical relays in terms of their high level of integration, smaller size, faster switching speed, high-voltage insulation, lower power consumption, and much better reliability.

Features and Benefits**High Integration**

- Solid-State Bi-directional Signal Switch Available in DIP-8, DIP-6 and SO-4 Packages
- Dual Channel, Normally-off Single-Pole-Single-Throw (SPST) Relay, 2 Form A, in DIP-8 Package

Qualified Performance over -40 to 85°C**Fast Switching Speed**

- Max. Ton = 1.0ms, Toff = 0.2ms
- High Transient Immunity in Noisy Environment >1 kV/μs

High Insulation Voltage with Safety and Regulatory Approvals (Pending)

- 3.75 kVac for 1 minute per UL1577
- CSA Component Acceptance

Differentiating Portfolio

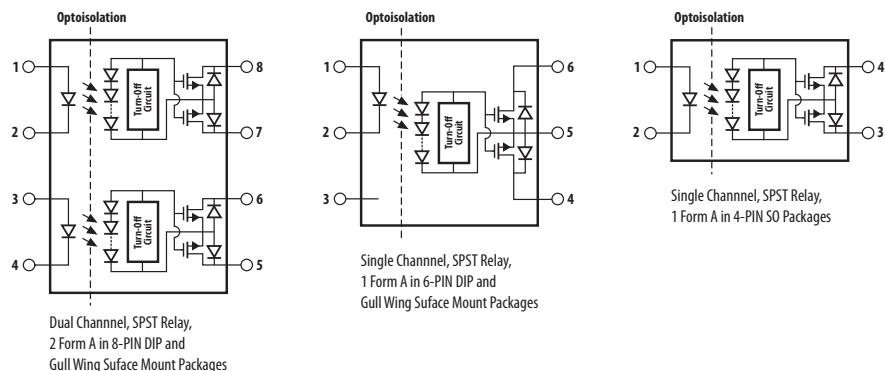
- 60 to 400-V Output Withstand Voltage 60 V for ASSR-1xxx Series
250 V for ASSR-3xxx Series
400 V for ASSR-4xxx Series
- 0.05 to 1.0 A Current Rating 0.05 A for ASSR-30xx Series
0.12 A for ASSR-41xx Series
0.20 A for ASSR-32xx Series
0.60 A for ASSR-14xx Series
1.00 A for ASSR-15xx Series
- Low CxR:
ASSR-32xR with 8 ohm
ASSR-30xC with 10 pF
- Low Off-State Leakage
ASSR-32xR with 1 nA Max.

This preliminary data is provided to assist you in the evaluation of product(s) currently under development. Until Avago Technologies releases this product for general sales, Avago Technologies reserves the right to alter prices, specifications, features, capabilities, functions, release dates, and remove availability of the product(s) at anytime.

Product Selection

Function	Part Number	Product Description
High Current	ASSR-1510	60V / 1.0A / 0.5Ω
	ASSR-1511	1 Form-A, 4-Pin SO
	ASSR-1520	1 Form-A, 6-Pin DIP 2 Form-A, 8-Pin DIP
General Purpose	ASSR-1410	60V / 0.6A / 1.0Ω
	ASSR-1420	1 Form-A, 4-Pin SO 2 Form-A, 8-Pin DIP
	ASSR-3210*	250V / 0.2A / 10Ω
Low CxR	ASSR-3211*	1 Form-A, 4-Pin SO
	ASSR-3220	1 Form-A, 6-Pin DIP 2 Form-A, 8-Pin DIP
	ASSR-4110	400V / 0.12A / 25Ω
ASSR-4120	ASSR-321R*	1 Form-A, 4-Pin SO
	ASSR-322R	2 Form-A, 8-Pin DIP
	ASSR-301C*	250V / 0.05A / 35Ω / 15pF
ASSR-302C*	ASSR-302C*	1 Form-A, 4-Pin SO 2 Form-A, 8-Pin DIP

Note: (1) *Advanced Information (2) All DIP packages with Gull Wing Surface Mount Option

Functional Block Diagrams

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