

## | SDI SERIES

### PCB MOUNT SOLID STATE RELAYS



#### Features

- 16 Pin DIP SSR
- Ratings to 1.5A @ 280 VAC
- SCR output
- Current control input
- Zero-crossing (resistive loads) or random-fire (inductive loads) output

#### PRODUCT SELECTION

| Control Voltage | 1.5 A   | 1.5 A    |
|-----------------|---------|----------|
| 10-35mA         | SDI2415 | SDI2415R |

#### SPECIFICATIONS <sup>1</sup>

##### Output

|                                                                        |        |
|------------------------------------------------------------------------|--------|
| Operating Voltage (47-63Hz) [Vrms]                                     | 12-280 |
| Transient Overvoltage [Vpk]                                            | 600    |
| Maximum Off-State Leakage Current @ Rated Voltage [mA]                 | 0.01   |
| Minimum Off-State dv/dt @ Maximum Rated Voltage [V/sec] <sup>(3)</sup> | 500    |
| Maximum Load Current [Arms] <sup>(3)</sup>                             | 1.5    |
| Minimum Load Current [Arms]                                            | 0.025  |
| Maximum Surge Current (16.6ms) [Apk]                                   | 30     |
| Maximum On-State Voltage Drop @ Rated Current [Vpk]                    | 1.2    |
| Minimum Power Factor (with Maximum Load)                               | 0.5    |

##### Input

| Description                   | SDI      |
|-------------------------------|----------|
| Control Voltage Range         | -        |
| Control Current Range         | 10-32 mA |
| Must Turn On Voltage          | -        |
| Must Turn On Current          | 10 mA    |
| Must Turn Off Voltage         | -        |
| Must Turn Off Current         | 1.0 mA   |
| Typical Input Current @ 5 VDC | -        |

|                                            |           |
|--------------------------------------------|-----------|
| Nominal Input Impedance [Ohm]              | -         |
| Maximum Turn-On Time [msec] <sup>(4)</sup> | 1/2 Cycle |
| Maximum Turn-Off Time [msec]               | 1/2 Cycle |

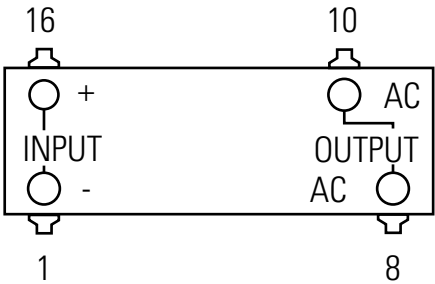
## General

| Description                                                     | Parameters                 |
|-----------------------------------------------------------------|----------------------------|
| Dielectric Strength, Input/Output/Base (50/60Hz) <sup>(2)</sup> | 3750 Vrms                  |
| Minimum Insulation Resistance (@ 500 V DC) <sup>(2)</sup>       | 10 <sup>9</sup> Ohms       |
| Maximum Capacitance, Input/Output                               | 2.0 pF                     |
| Ambient Operating Temperature Range                             | -30°C to 80°C              |
| Ambient Storage Temperature Range                               | -30°C to 125°C             |
| Weight (typical)                                                | 0.10 oz. (2.9g)            |
| Encapsulation                                                   | Thermally Conductive Epoxy |

## GENERAL NOTES

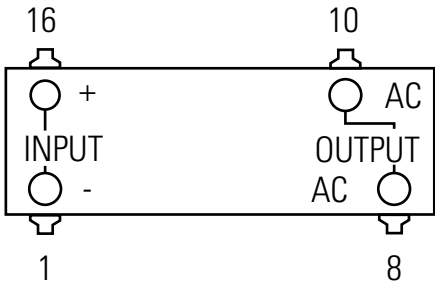
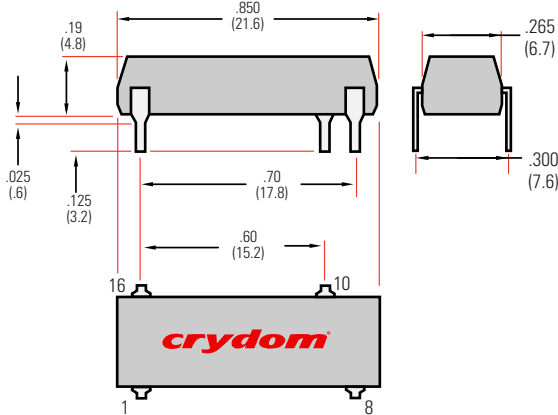
- <sup>(1)</sup> All parameters at 25¼°C unless otherwise specified.
- <sup>(2)</sup> Dielectric and insulation resistance are measured
- <sup>(3)</sup> Off-State dv/dt test method per EIA/NARM standard RS-443

## WIRING DIAGRAM



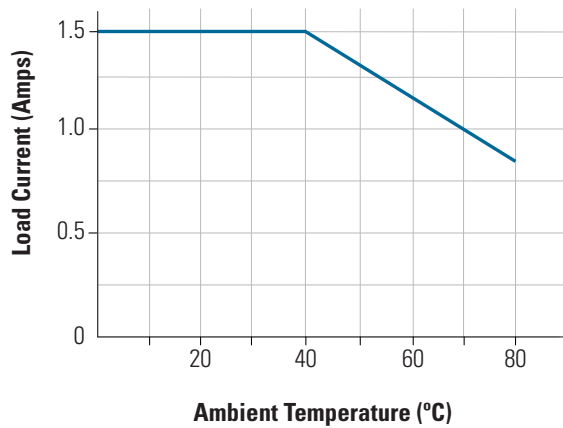
## MECHANICAL SPECIFICATIONS

Tolerances: ±0.02 in / 0.5 mm  
 All dimensions are in: inches [millimeters]



DC CONTROL  
 PIN 8: AC LOAD  
 PIN 10: AC LOAD  
 PIN 16: +DC CONTROL PIN 1: -DC CONTROL

## THERMAL DERATE INFORMATION



Max. Load Current vs. Temp.

## AGENCY APPROVALS & CERTIFICATIONS



UL 116950  
CSA LR81689

## WARNINGS



### RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

**Failure to follow these instructions can result in serious injury, or equipment damage.**



### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

**Failure to follow these instructions will result in death or serious injury.**

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