



## | DPA SERIES

PCB MOUNT



### Features

- 16 Pin DIP SSR
- Ratings to 1 A @ 280 VAC
- SCR output
- Voltage or current-control input
- Zero-crossing (resistive loads) output



## PRODUCT SELECTION

| Control Voltage | 120V    | 240V    |
|-----------------|---------|---------|
| 3-32 VDC        | DPA4119 | DPA6119 |
| 10-35 mA        | DPA4111 | DPA6111 |



## ORDERING OPTIONS

|                 |     |    |    |
|-----------------|-----|----|----|
| Series          | DPA | 41 | 19 |
| Load Current    |     |    |    |
| 41: 20-140 VAC  |     |    |    |
| 61: 20-280 VAC  |     |    |    |
| Circuit Type    |     |    |    |
| 11: 10-35 mA DC |     |    |    |
| 19: 3.5-10 VDC  |     |    |    |

Required for valid part number  
For options only and not required for valid part number



## OUTPUT SPECIFICATIONS <sup>(1)</sup>

| Description                                                      | DPA41xx | DPA61xx |
|------------------------------------------------------------------|---------|---------|
| Operating Voltage (47-63Hz) [Vrms]                               | 20-140  | 20-280  |
| Transient Overvoltage [Vpk]                                      | 400     | 600     |
| Maximum Off-State Leakage Current @ Rated Voltage [mArms]        | 0.01    | 0.01    |
| Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] (3)     | 500     | 500     |
| Maximum Load Current [Arms]                                      | 1.0     | 1.0     |
| Minimum Load Current [Arms]                                      | 0.025   | 0.025   |
| Maximum Surge Current (16.6ms) [A <sub>pk</sub> ]                | 30      | 30      |
| Maximum On-State Voltage Drop @ Rated Current [V <sub>pk</sub> ] | 1.2     | 1.2     |
| Minimum Power Factor (with Maximum Load)                         | 0.5     | 0.5     |



## INPUT SPECIFICATIONS <sup>(1)</sup>

| Description                   | DPAx11    | DPAx19     |
|-------------------------------|-----------|------------|
| Control Voltage Range         | -         | 3.5-10 VDC |
| Control Current Range         | 10-35 mA  | -          |
| Must Turn Off-State Current   | 1.0 mA    | -          |
| Must Turn Off-State Voltage   | -         | 1.0 VDC    |
| Typical Input Current @ 5 VDC | -         | 15 mAdc    |
| Nominal Input Impedance       | -         | 270 Ohm    |
| Maximum Turn-On Time [msec]   | 1/2 Cycle | 1/2 Cycle  |
| Maximum Turn-Off Time [msec]  | 1/2 Cycle | 1/2 Cycle  |



## GENERAL SPECIFICATIONS

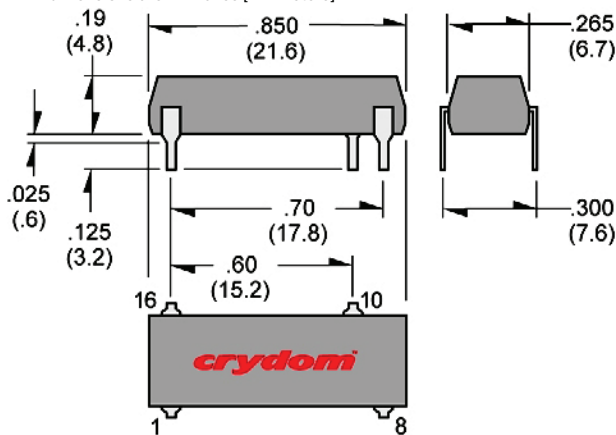
| Description                                                     | Parameters                 |
|-----------------------------------------------------------------|----------------------------|
| Dielectric Strength, Input/Output/Base (50/60Hz) <sup>(2)</sup> | 3750 Vrms                  |
| Minimum Insulation Resistance (@ 500 VDC) <sup>(2)</sup>        | 10 <sup>9</sup> Ohm        |
| Maximum Capacitance, Input/Output                               | 2.0 pF                     |
| Ambient Operating Temperature Range                             | -30 to 80°C                |
| Ambient Storage Temperature Range                               | -30 to 125°C               |
| Weight (typical)                                                | 0.1 oz. (2.9g)             |
| Encapsulation                                                   | Thermally Conductive Epoxy |



## MECHANICAL SPECIFICATIONS

Tolerances: ±0.02 in / 0.5 mm

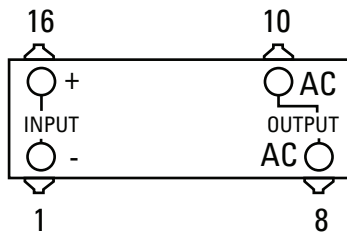
All dimensions are in: inches [millimeters]



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



## WIRING DIAGRAM

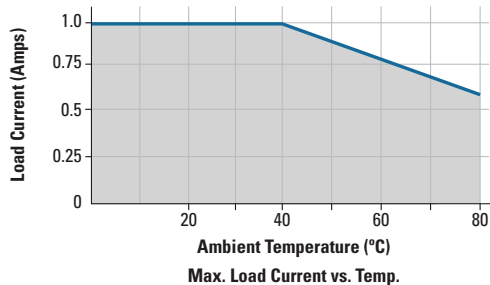


## GENERAL NOTES

- <sup>(1)</sup> All parameters at 25°C unless otherwise specified.
- <sup>(2)</sup> Dielectric and insulation resistance are measured between input and output
- <sup>(3)</sup> Off-State dv/dt test method per EIA/NARM standard RS



## THERMAL DERATE INFORMATION



## AGENCY APPROVALS AND CERTIFICATIONS

UL E116950  
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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