

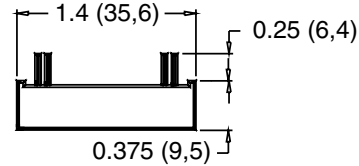
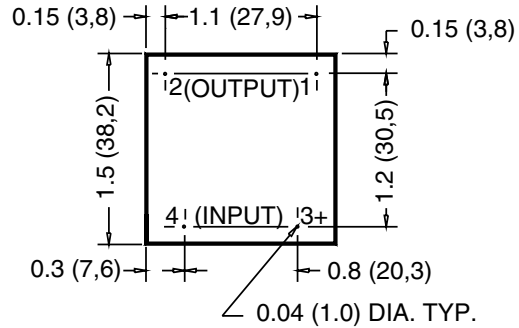
# SOLID STATE RELAYS

## GA1, GA8, SERIES

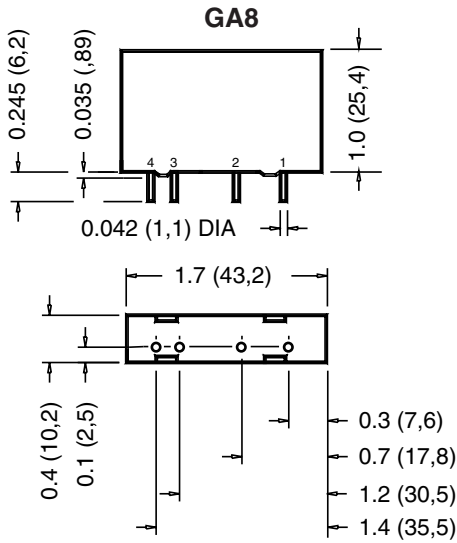
- High Current Thyristor for 100A Surge Capability
- UL Recognized/Horse Power Rated (GA8) (E46203)
- 4KV Optical Isolation
- Zero Voltage Turn-On
- Industry Standard Packaging, SIP or Flat Pack
- Form A Output
- CE Compliant



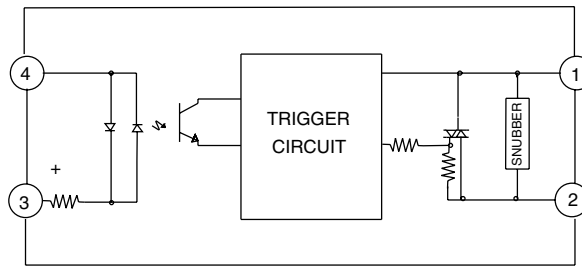
**GA1**



**DIMENSIONS:** inches (mm)  
**TOLERANCE:**  $\pm 0.020$  ( $\pm 0,50$ )



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GA1 & GA8 SERIES DC INPUT  
 EQUIVALENT CIRCUIT

# SOLID STATE RELAYS

## GA1, GA8, SERIES

### INPUT SPECIFICATIONS: (1)

Parameter	GA16B02	GA86D05	Units
	GA86B02	GA86D05R	
Minimum Turn-On Voltage	3.0	3.0	VDC
Maximum Input Voltage	28	28	VDC
Drop Out Voltage	1.0	1.0	VDC
Maximum Input Current (2)	25	25	mADC
Nominal Input Resistance (3)	1K	1K	Ω

### OUTPUT SPECIFICATIONS:

Model Number	GA16B02 (10)	GA86D05	Units
	GA86B02	GA86D05R	
Parameter			
Nominal Line Voltage	240	240	Vrms
Minimum Line Voltage	24	24	Vrms
Maximum Line Voltage	280	280	Vrms
Maximum Peak Off-State Voltage(4)	±600	±600	Vpeak
Static (Off-State) dv/dt	200	200	V/μS

Parameter	GA16B02	GA86D05	Units
	GA86B02	GA86D05R	
Maximum On-State Current (5)	4.0	5.0	Arms
Minimum On-State Current	.05	.05	Arms
Maximum 1-Cycle Surge (6)	100	100	Apeak
On-State Voltage Drop (7)	1.6	1.6	Vpeak
Maximum Off-State Leakage (8)			
240V Models	.1	.1	mArms
HP Rating (11)	1/4	1/4	H.P.

### GENERAL SPECIFICATION: (1)

Parameter	All Devices	Units
Operating Temperature Range	-30 to +80	°C
Storage Temperature Range	-40 to +100	°C
Response Time (12)	.5	Cycle
Input to Output Isolation Voltage (9)	4000	Vrms
Capacitance Input to Output (Typ)	8	pF
Line Frequency Range	47 to 63	Hz

Note: GA1-2B and GA1-4B have been replaced by GA1-6B  
GA8-2B and GA8-4B have been replaced by GA8-6B

#### Notes:

- (1) Specifications apply to Ta -30 TO +80 unless otherwise noted.
- (2) At maximum input voltage.
- (3) Does not include IRED impedance (drop).
- (4) One minute maximum duration when applied as a DC Voltage.
- (5) At Ta of 20°C, derate by 25 mA/°C to 40°C, 50 mA/°C from 40°C to 80°C. UL rating is 3.5 Arms, CSA rating is 3.0 Arms.
- (6) At Ta of 25°C, non-repetitive.
- (7) At Ta of 25°C and maximum on-state current.
- (8) At Ta of 25°C and maximum line voltage.
- (9) At Ta of 25°C, for one second.
- (10) Random turn-on versions available. Specify by adding suffix "R" to appropriate part number. Contact factory for additional details.
- (11) For GA8 only, 1/4 H.P. at 240 VAC, 1/8 HP at 120 VAC
- (12) AT 60 Hz 100 μS for Random Turn-on (suffix "R") models

### 5 AMP. GA8 DERATING CURVE

