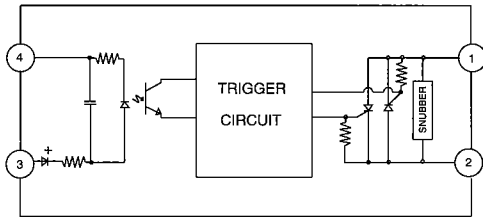
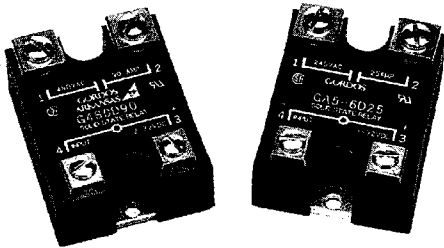


# GORDOS

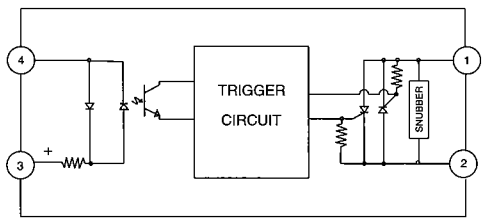
## SOLID STATE RELAYS

### G SERIES POWER RELAYS

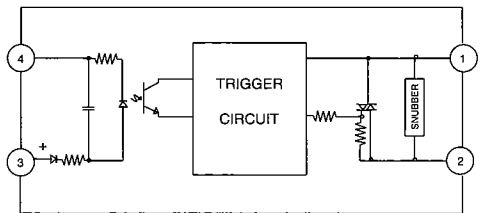
- Back-to-back (dual) SCR output for severe inductive loads.
- Superior False turn-on immunity and positive turn-off at high dv/dt.



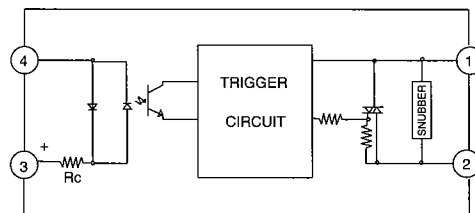
G SERIES AC INPUT  
EQUIVALENT CIRCUIT



G SERIES DC INPUT  
EQUIVALENT CIRCUIT



GA5 SERIES AC INPUT  
EQUIVALENT CIRCUIT



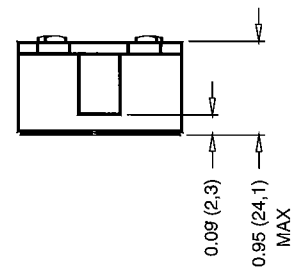
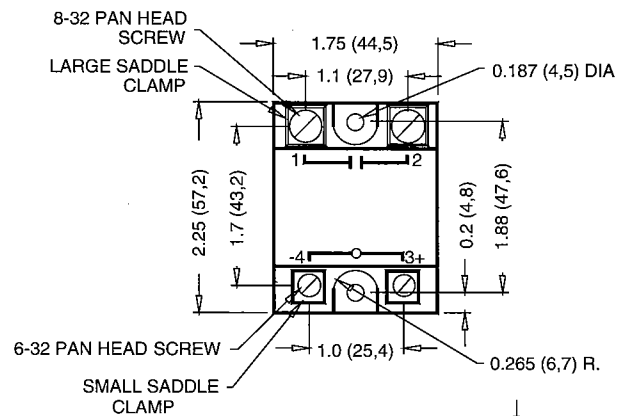
GA5 SERIES DC INPUT  
EQUIVALENT CIRCUIT

### GA5 SERIES POWER RELAYS

- Economical triac output for general purpose applications

#### FEATURES

- Current ratings to 90A
- Output voltage rating to 660 VAC with 24 VAC minimum
- AC or DC inputs
- 4KV optical isolation
- Zero AC or random turn-on models
- RC snubber network for inductive loads
- UL recognized (E46203, E79183), CSA certified (38595)
- VDE approval on many models (37421)



DIMENSIONS: INCHES (MILLIMETERS)  
TOLERANCE: ±0.020 (±0,50)

Products and specifications subject to change without notice.  
Consult factory for application assistance.

# GORDOS

## SOLID STATE RELAYS

### G, GA5 SERIES POWER RELAYS

#### G SERIES (1)

OUTPUT SPECIFICATIONS	MODEL NUMBER					Output Rating	Control Voltage
		G120A10 G120A25 G120A45	G240A10 G240A25 G240A45	G280A10 G280A25 G280A45  G280A75 G280A90	G480A10 G480A25  G480A50 G480A75 G480A90	G575A10 G575A25  G575A50 G575A75 G575A90	10A 25A 45A 50A 75A 90A
	G120D10* G120D25* G120D45*	G240D10* G240D25* G240D45*	G280D10* G280D25* G280D45*  G280D75 G280D90	G480D10 G480D25  G480D50 G480D75 G480D90	G575D10 G575D25  G575D50 G575D75 G575D90	10A 25A 45A 50A 75A 90A	3-32 VDC 3-32 VDC 3-32 VDC 3-32 VDC 3-32 VDC 3-32 VDC
	G120E10 G120E25 G120E45	G240E10 G240E25 G240E45	G280E10 G280E25 G280E45  G280E75 G280E90	G480E10 G480E25  G480E50 G480E75 G480E90	G575E10 G575E25  G575E50 G575E75 G575E90	10A 25A 45A 50A 75A 90A	18-36 VAC 18-36 VAC 18-36 VAC 18-36 VAC 18-36 VAC 18-36 VAC
Maximum Line Voltage (VRMS)	140	250	280	480	660		
Minimum line voltage (Vrms)	24	24	24	36	48		
Max. off-state voltage (Vpeak) <sup>2</sup>	±250	±500	±600	±1200	±1200		
Max. off-state leakage (mArms) <sup>3</sup>	7.5	15.0	15.0	15.0	20.0		
Static (off-state) dv/dt (V/μs) <sup>4</sup>	200	200	200	200	200		

(5)

Specify suffix "R" for random turn-on models.

#### GA5 SERIES (1)

OUTPUT SPECIFICATIONS	MODEL NUMBER			Output Rating	Control Voltage
		GA5-2A10 GA5-2A25	GA5-4A10 GA5-4A25	GA5-6A10 GA5-6A25	10A 25A
	GA5-2D10* GA5-2D25*	GA5-4D10* GA5-4D25*	GA5-6D10* GA5-6D25*	10A 25A	3-32 VDC 3-32 VDC
	GA5-2E10 GA5-2E25	GA5-4E10 GA5-4E25	GA5-6E10 GA5-6E25	10A 25A	18-36 VAC 18-36 VAC
Maximum Line Voltage (VRMS)	140	250	280		
Minimum line voltage (Vrms)	24	24	24		
Max. off-state voltage (Vpeak) <sup>(2)</sup>	±250	±400	±600		
Max. off-state leakage (mArms) <sup>(3)</sup>	7.5	15.0	15.0		
Static (off-state) dv/dt (V/μs) <sup>(4)</sup>	200	200	200		

Specify suffix "R" for random turn-on models.

\*Specify suffix "V" for VDE approved models. (120, 250, 280 "D" input versions only)

**Notes:**

- (1) Specifications apply to TA from -30 to +80° C unless otherwise noted.
- (2) One minute maximum duration if applied as a DC voltage.
- (3) At TA of 25° C and maximum line voltage.
- (4) Minimum dv/dt per EIA/NARM RS443, method RS397, 25° C.
- (5) G480D and G575D series DC input range is 4.0 to 32.0 VDC.

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# GORDOS

## SOLID STATE RELAYS

### G, GA5 SERIES POWER RELAYS

#### INPUT SPECIFICATIONS (1)

Parameter	A	D	E
Control Voltage	90-280 VAC	3-32 VDC (10)	18-36 VAC
Drop Out Voltage	10 Vrms	1.0 DC	2.0 Vrms
Maximum Input Current (2)	10 mArms	34 mADC	7 mArms
Nominal Input Resistance (3)	40K $\Omega$	1K $\Omega$	8K $\Omega$
Turn-On Time (4)	20 mS	0.5 Cycle Max (4)	20 mS
Turn-Off Time	30 mS	0.5 Cycle Max	30 mS

#### OUTPUT SPECIFICATIONS

Parameter	G Series						GA5 Series		Units
	10	25	45	50	75	90	10	25	
Maximum On-State Current (5)	100	100	100	100	100	100	50	50	Arms
Minimum On-State Current	100	250	500	750	750	1000	100	250	mArms
Maximum 1-Cycle Surge (6)	30	75	135	145	200	280	30	75	Apeak
Maximum 1-Second Surge (7)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	Apeak
On-State Voltage Drop (8)	200	260	1040	2345	2345	4165	40	260	Vpeak
I <sub>ft</sub> (60 Hz, Half Cycle)	1.8	1.8	0.65	-	0.25	0.25	3.0	2.0	A <sup>2</sup> sec
R <sub>jb</sub> (140, 250, 280, V Models)	0.8	0.8	-	0.60	0.25	0.25	-	-	°C/W
R <sub>jb</sub> (480, 660V Models)									°C/W

#### GENERAL SPECIFICATIONS (1)

Parameter	All Devices	Units
Operating Temperature Range	-20 to +80	°C
Storage Temperature Range	-40 to +100	°C
Input to Output Isolation Voltage (9)	4000	Vrms
Input/Output to Ground Isolation Voltage	2500	Vrms
Capacitance Input to Output (Typical)	8	pF
Line Frequency Range	47 to 80	Hz

#### 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) At 60 Hz 100 $\mu$ s for random turn-on (suffix "R") models.
- (5) With relay properly mounted on an adequate heatsink. See thermal derating charts.
- (6) At Ta of 25° C, non-repetitive.
- (7) At Ta of 25° C.
- (8) At Ta of 25° C and maximum on-state current.
- (9) At TA of 25° C for one second, maximum leakage 1 MA.
- (10) Control voltage range for G480D and G575D series is 4.0 to 32.0 VDC.

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