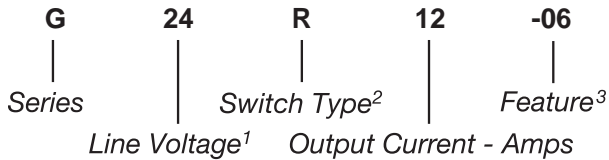


Part Number	Description
G24R12-06	12A, 280 Vac
G24D12-06	12A, 280 Vac

**Part Number Explanation**



NOTES  
 1) Line Voltage (nominal): 24 = 240 Vac  
 2) Switch Type: R = Random turn-on; D = Zero-cross turn-on  
 3) Feature: -06 = Faston terminals

**MECHANICAL SPECIFICATION**

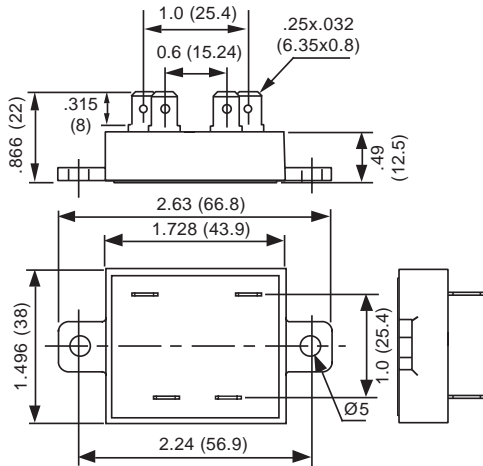
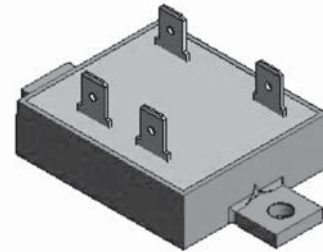


Figure 1 — G relays; dimensions in inches (mm)

**INPUT (CONTROL) SPECIFICATION**

	Min	Max	Units
<b>Control Range</b>			
G24R	3	32	Vdc
G24D	4	32	Vdc
<b>Input Current Range</b>			
G24R	2	30.5	mAdc
G24D	3	30.5	mAdc
Must Turn-Off Voltage		1	Vdc
Input Resistance (Typical)		1000	Ohms
Reverse Voltage Protection		32	V



**FEATURES/BENEFITS**

- Miniature size package
- Power and control connections by Faston terminals
- Internal VDR protection
- Excellent thermal performance
- High immunity to surges

**DESCRIPTION**

The Series G relays are designed for medium-power loads. The design incorporates a thyristor output. The Series G relays utilize optical isolation to protect the control from load transients. An internal MOV is also provided to protect against transient voltages. Its compact size makes it ideal for designs where space is limited.

**APPLICATIONS**

- Heating control
- Motor control
- Light dimmers
- Industrial and process control
- On/Off controls of medium-power AC equipment

**APPROVALS**

UL pending.

**CONTROL CHARACTERISTIC**

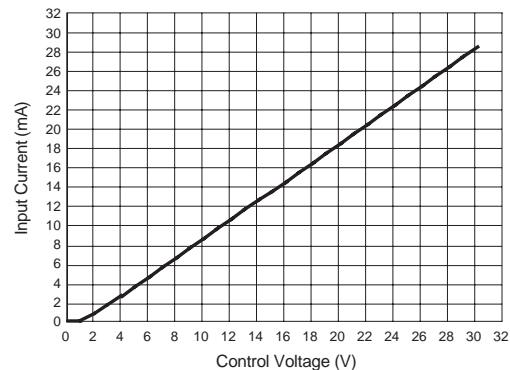


Figure 2 — G relays

**OUTPUT (LOAD) SPECIFICATION**

	Min	Max	Units
Operating Range (See Note 1)	12	320	Vrms
MOV Clamping Voltage @ 1mA		520	V
Output Current Range	.001	12	Arms

Maximum Surge Current Rating (Non-Repetitive)

See Figure 4	260	A
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On-State Voltage Drop	$0.75(I_e) + 0.02(I_e)^2$	V
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Zero-Cross Window (Typical)

G24R	R	NA	
G24D	D	±12	Vac

Off-State Leakage Current (60Hz)	0.1	mA
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Turn-On Time (60 Hz)

FS24R	0.1	ms
FS24D	8.3	ms

Turn-Off Time (60 Hz)	8.3	ms
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Off-State dv/dt	500	V/μs
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Maximum di/dt (Non-Repetitive)	50	A/μs
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Operating Frequency Range	0.1	440	Hz
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I <sup>2</sup> t for Match Fusing (<8.3ms)	340	A <sup>2</sup> S
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Thermal Resistance Junction to Case	5.6	°C/W
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**ENVIRONMENTAL SPECIFICATION**

	Min	Max	Units
Operating Temperature	-40	100	°C
Storage Temperature	-40	100	°C
Input-Output Isolation	4000		Vrms
Output-Case Isolation	4000		Vrms
Rated Impulse Voltage	4000		Vi

**TYPICAL APPLICATION**

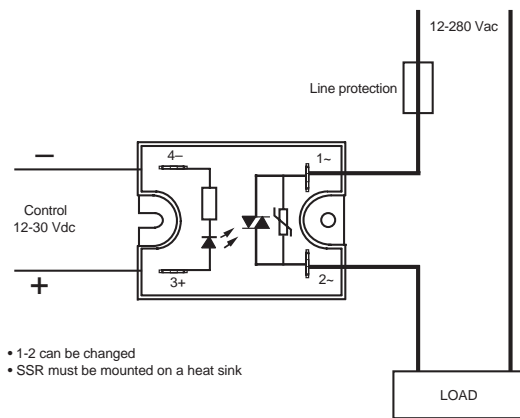


Figure 3 — G relays

**SURGE CURRENT**

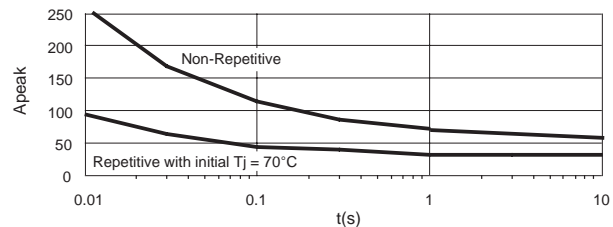


Figure 4 — G relays output current

**THERMAL CHARACTERISTICS**

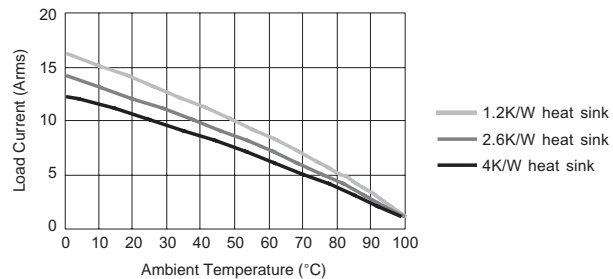


Figure 5 — G relays output current

NOTES:

1. Maximum voltage limited by MOV.
2. Electrical specifications at 25°C unless otherwise specified.
3. For 800Hz applications, contact factory.
4. For additional/custom options, contact factory.