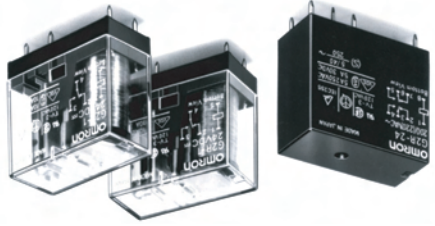


PCB Power Relay – G2R

A Power Relay for a Variety of Purposes with Various Models

- ROHS compliant
- Conforms to EN 61810-1, UL508, CSA22.2, SEV, SEMKO.
- Meets EN60335-1 requirements for household products.
- Clearance and creepage distance: 8 mm/8 m.
- Models with CT1250 material available.
- High-sensitivity (360 mW) and high-capacity (16 A) types available.
- Double-winding latching type available.



Ordering Information

Classification	Enclosure Ratings	Coil Ratings	Contact Form			
			DPDT	SPDT-NO	SPDT	SPST-NO
PCB terminal (upper bracket mounting)	General-purpose	Flux protection	G2R-1A	G2R-1A	G2R-2A	G2R-2
		Flux protection	G2R-1A4	G2R-1A	G2R-2A4	G2R-24
		Fully sealed	G2R-1AZ	G2R-1Z	G2R-2AZ	G2R-24
	Bifurcated contact	Flux protection	G2R-1AZ4	G2R-1Z4	G2R-2AZ4	G2R-24
		Fully sealed	G2R-1A-E	G2R-1-E	G2R-2A-E	G2R-2-H
		Fully sealed	G2R-1A-H	G2R-1-H	G2R-2A-H	G2R-2-H
High-capacity	Flux protection	G2R-1A-T	G2R-1-T	G2R-2A-T	G2R-2	
	Flux protection	G2R-1A-T	G2R-1-T	G2R-2A-T	G2R-2	
	Flux protection	G2R-1A-T	G2R-1-T	G2R-2A-T	G2R-2	
Quick connect (upper bracket mounting)	General-purpose	Unsealed	G2R-1A-T	G2R-1-T	G2R-2A-T	G2R-2
		Flux protection	G2R-1A-T	G2R-1-T	G2R-2A-T	G2R-2

Note: 1. When ordering, add the rated coil voltage to the model number.
 Example: G2R-1A 12 VDC
 Rated coil voltage
 2. Models with CT1250 material are also available.
 Contact your OMRON representative for more details.

PCB Power Relay – G2R

Model Number Legend

G2R □ - □ - □ □ □ □ □ □ □ □ □ □ VDC
 1 2 3 4 5 6 7 8 9

1. **Relay Function**
 None: Single-side stable
 K: Double-winding latching
2. **Number of Poles**
 1: 1 pole
 2: 2 poles
3. **Contact Form**
 None: PDT
 A: PST-NO
4. **Contact Type**
 None: Single
 Z: Bifurcated
5. **Enclosure Ratings**
 None: Flux protection
 4: Fully sealed
6. **Terminals**
 None: Straight PCB
 T: Quick-connect (upper bracket mounting)
7. **Classification**
 None: General-purpose
 E: High-capacity
 H: High-sensitivity
8. **Safety Standards**
 None: UL/CSA/EN/SEV/TÜV
 SKVD: UL/CSA/EN/SEV/TÜV/SEMKO
9. **Rated Coil Voltage**
 Refer to Coil Ratings

Specifications

■ **Coil Ratings**

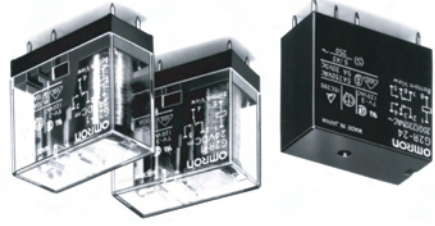
Rated voltage	Rated current (50/60Hz)		Coil resistance		Coil inductance		Coil inductance		Armature OFF 0.19	Armature ON 0.39	(H) (ref. value)	Must operate voltage		Must release voltage	Max. voltage	Power consumption
	50Hz	60Hz	60Hz	50Hz	50Hz	60Hz	80% max. of rated voltage	30% min. of rated voltage				140% of rated voltage (at 23°C)	Approx. 0.9 VA at 60 Hz (approx. 0.7 VA at 60 Hz)			
12 VAC	93 mA	75 mA	65 Ω	93 mA	75 mA	65 Ω	260 Ω	4.600 Ω	0.81	1.55	26.84	42	102	117	124	131
24 VAC	46.5 mA	37.5 mA	260 Ω	46.5 mA	37.5 mA	260 Ω	6,500 Ω	13.34	0.81	1.55	26.84	42	102	117	124	131
100/(110) VAC	11 mA	9/(10.6) mA	4,600 Ω	11 mA	9/(10.6) mA	4,600 Ω	25,000 Ω	20,200 Ω	0.81	1.55	26.84	42	102	117	124	131
120 VAC	9.3 mA	7.5 mA	6,500 Ω	9.3 mA	7.5 mA	6,500 Ω	25,000 Ω	20,200 Ω	0.81	1.55	26.84	42	102	117	124	131
200/(220)VAC	5.5 mA	4.5 (5.3) mA	25,000 Ω	5.5 mA	4.5 (5.3) mA	25,000 Ω	26,850	26,850	0.81	1.55	26.84	42	102	117	124	131
220 VAC	5.1 mA	4.1 mA	26,850	5.1 mA	4.1 mA	26,850	30,000 Ω	30,000 Ω	0.19	0.39	0.81	13.34	21	57.5	62	65.5
230 VAC	4.7 mA	3.8 mA	30,000 Ω	4.7 mA	3.8 mA	30,000 Ω	30,000 Ω	30,000 Ω	0.19	0.39	0.81	13.34	21	57.5	62	65.5
240 VAC	4.7 mA	3.8 mA	30,000 Ω	4.7 mA	3.8 mA	30,000 Ω	30,000 Ω	30,000 Ω	0.19	0.39	0.81	13.34	21	57.5	62	65.5

Rated voltage	Rated current (50/60Hz)		Coil resistance		Coil inductance		Coil inductance		Armature OFF 0.20	Armature ON 0.39	(H) (ref. value)	Must operate voltage		Must release voltage	Max. voltage	Power consumption
	50Hz	60Hz	60Hz	50Hz	50Hz	60Hz	70% max. of rated voltage	15% min. of rated voltage				170% of rated voltage (at 23°C)	Approx. 0.53 W			
5 VDC	106 mA	88.2 mA	47 Ω	106 mA	88.2 mA	47 Ω	68 Ω	275 Ω	0.20	0.39	0.39	0.39	0.39	0.39	0.39	0.53 W
6 VDC	88.2 mA	71.6 mA	68 Ω	88.2 mA	71.6 mA	68 Ω	93 Ω	325 Ω	0.20	0.39	0.39	0.39	0.39	0.39	0.39	0.53 W
12 VDC	43.6 mA	36.2 mA	275 Ω	43.6 mA	36.2 mA	275 Ω	325 Ω	1,100 Ω	0.20	0.39	0.39	0.39	0.39	0.39	0.39	0.53 W
24 VDC	21.8 mA	18.0 mA	1,100 Ω	21.8 mA	18.0 mA	1,100 Ω	1,100 Ω	4,170 Ω	0.20	0.39	0.39	0.39	0.39	0.39	0.39	0.53 W
48 VDC	11.5 mA	9.4 mA	4,170 Ω	11.5 mA	9.4 mA	4,170 Ω	4,170 Ω	18,860 Ω	0.20	0.39	0.39	0.39	0.39	0.39	0.39	0.53 W
100 VDC	5.3 mA	4.4 mA	18,860 Ω	5.3 mA	4.4 mA	18,860 Ω	18,860 Ω	18,860 Ω	0.20	0.39	0.39	0.39	0.39	0.39	0.39	0.53 W

PCB Power Relay – G2R

A Power Relay for a Variety of Purposes with Various Models

- ROHS compliant
- Conforms to EN 61810-1, UL508, CSA22.2, SEV, SEMKO.
- Meets EN60335-1 requirements for household products.
- Clearance and creepage distance: 8 mm/8 m.
- Models with CT1250 material available.
- High-sensitivity (360 mW) and high-capacity (16 A) types available.
- Double-winding latching type available.



Ordering Information

Classification		Enclosure Ratings	Coil Ratings	Contact Form	
PCB terminal mounting	General-purpose	Flux protection	AC/DC	G2R-1A	G2R-1
	Bifurcated contact	Flux protection	DC	G2R-1A4	G2R-14
		Fully sealed	DC	G2R-1AZ	G2R-1Z
	High-capacity	Flux protection	AC/DC	G2R-1A-E	G2R-1-E
		Fully sealed	DC	G2R-1AZ4	G2R-1Z4
	High-sensitivity	Flux protection	DC	G2R-1A-H	G2R-1-H
Double-winding latching	Flux protection	DC	G2R-1A	G2RK-1	
Quick connect (upper bracket mounting)	General-purpose	Unsealed	AC	G2R-1A-T	G2R1-T

Note: 1. When ordering, add the rated coil voltage to the model number.
 Example: G2R-1A 12 VDC
 Rated coil voltage
 2. Models with CT1250 material are also available. Contact your OMRON representative for more details.

116

PCB Power Relay – G2R

Model Number Legend

G2R □ - □ - □ □ □ □ □ □ □ □ □ □ □ □ VDC
 1 2 3 4 5 6 7 8 9

1. **Relay Function**
 None: Single-side stable
 K: Double-winding latching
2. **Number of Poles**
 1: 1 pole
 2: 2 poles
3. **Contact Form**
 None: □PDT
 A: □PST-NO
4. **Contact Type**
 None: Single
 Z: Bifurcated
5. **Enclosure Ratings**
 None: Flux protection
 4: Fully sealed
6. **Terminals**
 None: Straight PCB
 T: Quick-connect (upper bracket mounting)
7. **Classification**
 None: General-purpose
 E: High-capacity
 H: High-sensitivity
8. **Safety Standards**
 None: UL/CSA/EN/SEV/TÜV
 SKVD: UL/CSA/EN/SEV/TÜV/SEMKO
9. **Rated Coil Voltage**
 Refer to Coil Ratings

Specifications

■ **Coil Ratings**

Rated voltage	Rated Current		Coil resistance		Coil inductance		Must operate voltage		Max. voltage	Power consumption
	50Hz	60Hz	50Hz	60Hz	Armature OFF	Armature ON	80% max. of rated voltage	30% min. of rated voltage		
12 VAC	93 mA	75 mA	65 Ω	260 Ω	0.19	0.39	12 VAC	140% of rated voltage (at 23°C)	Approx. 0.9 VA at 60 Hz (approx. 0.7 VA at 60 Hz)	
24 VAC	46.5 mA	37.5 mA	260 Ω	4,600 Ω	0.81	1.55	24 VAC	70% max. of rated voltage		
100/(110) VAC	11 mA	9/(10.6) mA	4,600 Ω	6,500 Ω	13.34	26.84	100 VAC	15% min. of rated voltage		
120 VAC	9.3 mA	7.5 mA	6,500 Ω	20,200 Ω	51.3	102	120 VAC	Must operate voltage		
200/(220)VAC	5.5 mA	4.5 (5.3) mA	25,000 Ω	26,850	57.5	117	200 VAC	Max. voltage		
220 VAC	5.1 mA	4.1 mA	26,850	30,000 Ω	62	124	220 VAC	Power consumption		
230 VAC	4.7 mA	3.8 mA	30,000 Ω		65.5	131				

Rated voltage	Rated current (50/60Hz)		Coil resistance		Coil inductance		Must operate voltage		Max. voltage	Power consumption
	50/60Hz	50/60Hz	50/60Hz	50/60Hz	Armature OFF	Armature ON	70% max. of rated voltage			
5 VDC	106 mA	88.2 mA	47 Ω	68 Ω	0.20	0.39	5 VDC	170% of rated voltage (at 23°C)	Approx. 0.53 W	
6 VDC	88.2 mA	70.5 mA	68 Ω	100 Ω	0.28	0.55	6 VDC	15% min. of rated voltage		
12 VDC	43.6 mA	35.3 mA	275 Ω	410 Ω	1.15	2.29	12 VDC	Must operate voltage		
24 VDC	21.8 mA	17.6 mA	1,100 Ω	1,700 Ω	4.27	8.55	24 VDC	Max. voltage		
48 VDC	11.5 mA	9.3 mA	4,170 Ω	6,260 Ω	13.86	27.71	48 VDC	Power consumption		
100 VDC	5.3 mA	4.1 mA	18,860 Ω		67.2	93.2				

117

PCB Power Relay – G2R

Power Relays

■ Contact Ratings

PCB/Flux Protection, Plug-in, Quick-connect Terminal Relays

Item	General-purpose, quick-connect terminal		High-capacity
Number of poles	2 poles		1 pole
Load	Resistive load (cosp = 1)	Inductive load (cosp = 0.4; L/R = 7 ms)	Resistive load (cosp = 1)
Rated Load	10 A at 250 VAC; 7.5 A at 250 VAC; 5 A at 30 VDC	5 A at 250 VAC; 3 A at 30 VDC	16 A at 250 VAC; 8 A at 30 VDC
Contact material	AgSnIn		
Rated carry current	10 A		16 A
Max. switching voltage	380 VAC, 125 VDC		380 VAC, 125 VDC
Max. switching current	10 A		16 A
Max. switching power	2,500 VA, 300 W	1,875 VA, 150 W	4,000 VA, 480 W
Failure rate (reference value)	100 mA at 5 VDC		100 mA at 5 VDC

Note: 1. P level: $\lambda_{60} = 0.1 \times 10^{-6}$ /operation.

PCB Power Relay – G2R

PCB/Flux Protection, Plug-in, Quick-connect Terminal Relays

High-sensitivity Relays

Rated voltage	5 VDC	6 VDC	12 VDC	15 mA	30 mA	60 mA	100 Ω	400 Ω	1,500 Ω	6,400 Ω	Coil resistance (see Note 1)		70 Ω	100 Ω	15% min. of rated voltage	Must operate voltage	15% min. of rated voltage	Must release voltage	170% of rated voltage (at 23°C)	Max. voltage	170% of rated voltage (at 23°C)	Power consumption	Approx. 0.36 W	
											Rated current (see Note 1)	Rated current (see Note 1)												

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of $\pm 15\%$ (AC rated current) or $\pm 10\%$ (DC coil resistance).

2. Operating characteristics are measured at a coil temperature of 23°C.

3. Depending on the type of relay, some relays do not have coil specifications. Contact your Omron representative for more details.

Rated voltage	5 VDC	6 VDC	12 VDC	70.6 mA	138 mA	167 mA	34.6 mA	69.4 Ω	170 Ω	43.5 Ω	0.42	1.74	3.43	0.146	0.208	0.83	Set Coil		Reset Coil		Rated current	70% max. of rated voltage	70% max. of rated voltage	Must reset voltage	140% of rated voltage (at 23°C)	Max. voltage	140% of rated voltage (at 23°C)	Power consumption	Set coil: Approx. 850 mW; Reset coil: Approx. 600 mW
																	Rated current (see note 1.)	Coil resistance (see note 1.)	Coil inductance	Armature OFF									

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of $\pm 10\%$.

2. Operating characteristics are measured at a coil temperature of 23°C.

Item	Bifurcated contacts		High-sensitivity
Number of poles	1 pole		2 poles
Load	Resistive load (cosp = 1)	Inductive load (cosp = 0.4; L/R = 7 ms)	Resistive load (cosp = 1)
Rated Load	5 A at 250 VAC; 2 A at 250 VAC; 3 A at 30 VDC	5 A at 250 VAC; 2 A at 250 VAC; 3 A at 30 VDC	3 A at 250 VAC; 1 A at 250 VAC; 1.5 A at 30 VDC
Rated carry current	5 A		3 A
Max. switching voltage	380 VAC, 125 VDC		380 VAC, 125 VDC
Max. switching current	5 A		3 A
Max. switching power	1,250 VA, 90 W	500 VA, 90 W	750 VA, 90 W
Failure rate (reference value)	1 mA at 5 VDC		10 mA at 5 VDC

Note: P level: $\lambda_{60} = 0.1 \times 10^{-6}$ /operation.

PCB/Flux Protection Relays

Pcb Power Relay – G2R

Rated voltage	Rated current (50/60Hz) (see Note 1)	Must operate voltage		Must release voltage		Max. voltage	Power consumption
		70% max. of rated voltage	15% min. of rated voltage	170% of rated voltage (at 23°C)	Approx. 0.36 W		
5 VDC	71.4 mA	70 Ω	100 Ω	1.07	0.75		
6 VDC	60 mA	70 Ω	100 Ω	1.07	0.75		
12 VDC	30 mA	400 Ω	400 Ω	2.14	0.53		
24 VDC	15 mA	1,600 Ω	1,600 Ω	7.80	0.37		
48 VDC	7.5 mA	6,400 Ω	6,400 Ω	31.20	0.37		
				4.27	1.07		
				15.60	0.75		
				62.40	0.75		

High-sensitivity Relays

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of $\pm 15\%$ / $\pm 20\%$ (AC rated current) or $\pm 10\%$ (DC coil resistance).
2. Operating characteristics are measured at a coil temperature of 23°C.
3. Depending on the type of relay, some relays do not have coil specifications. Contact your Omron representative for more details.

Double-winding Latching Relays

Rated voltage	Rated current (see note 1.)	Coil resistance (see note 1.)		Rated current	Reset Coil	
		30 Ω	43.5 Ω		(H) (ref. value)	Armature ON
5 VDC	167 mA	30 Ω	43.5 Ω	119 mA	42 Ω	0.006
6 VDC	138 mA	30 Ω	43.5 Ω	100 mA	60 Ω	0.009
12 VDC	70.6 mA	170 Ω	170 Ω	50 mA	240 Ω	0.018
24 VDC	34.6 mA	694 Ω	694 Ω	25 mA	960 Ω	0.079
						0.148
						0.036
						0.148

Note: 1. The rated current and coil resistance are measured at a coil temperature of 23°C with a tolerance of $\pm 10\%$.
2. Operating characteristics are measured at a coil temperature of 23°C.

Set coil: Approx. 850 mW; Reset coil: Approx. 600 mW

Pcb Power Relay – G2R

Item	Number of poles	Load	Rated Load	Contact material	Rated carry current	Max. switching voltage	Max. switching current	Max. switching power	Failure rate (reference value)
	1 pole	Resistive load ($\cos\phi = 1$)	10 A at 250 VAC; 7.5 A at 250 VAC; 5 A at 30 VDC	AgSnIn	10 A	380 VAC, 125 VDC	10 A	2,500 VA, 300 W	100 mA at 5 VDC
	2 poles	Resistive load ($\cos\phi = 1$) Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	5 A at 250 VAC; 3 A at 30 VDC		5 A	380 VAC, 125 VDC	5 A	1,875 VA, 150 W	100 mA at 5 VDC
		Resistive load ($\cos\phi = 1$) Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	2 A at 250 VAC; 1.6 A at 30 VDC		5 A	380 VAC, 125 VDC	5 A	1,250 VA, 90 W	100 mA at 5 VDC
		Resistive load ($\cos\phi = 1$) Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	16 A at 250 VAC; 8 A at 30 VDC		16 A	380 VAC, 125 VDC	16 A	4,000 VA, 480 W	100 mA at 5 VDC
		Resistive load ($\cos\phi = 1$) Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	16 A at 250 VAC; 8 A at 30 VDC		16 A	380 VAC, 125 VDC	16 A	2,000 VA, 240 W	100 mA at 5 VDC

Pcb/Flux Protection, Plug-in, Quick-connect Terminal Relays

Contact Ratings

Note: 1. P level: $\lambda_{60} = 0.1 \times 10^{-6}$ /operation.

Item	Number of poles	Load	Rated Load	Rated carry current	Max. switching voltage	Max. switching current	Max. switching power	Failure rate (reference value)
	1 pole	Resistive load ($\cos\phi = 1$)	5 A at 250 VAC; 2 A at 250 VAC; 3 A at 30 VDC	5 A	380 VAC, 125 VDC	5 A	1,250 VA, 90 W	1 mA at 5 VDC
		Resistive load ($\cos\phi = 1$) Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	5 A at 250 VAC; 3 A at 30 VDC	5 A	380 VAC, 125 VDC	5 A	1,250 VA, 90 W	1 mA at 5 VDC
		Resistive load ($\cos\phi = 1$) Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	3 A at 250 VAC; 1.5 A at 30 VDC	3 A	380 VAC, 125 VDC	3 A	750 VA, 90 W	10 mA at 5 VDC
		Resistive load ($\cos\phi = 1$) Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	3 A at 250 VAC; 1.5 A at 30 VDC	3 A	380 VAC, 125 VDC	3 A	250 VA, 45 W	10 mA at 5 VDC

Note: P level: $\lambda_{60} = 0.1 \times 10^{-6}$ /operation.

Pcb/Flux Protection Relays

PCB Power Relay – G2R

Item	General-purpose (single contact)				Bifurcated contact	
Number of poles	1 pole		2 poles		1 pole	
Load	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)
Rated Load	8 A at 250 VAC; 8 A at 30 VDC	6 A at 250 VAC; 4 A at 30 VDC	4 A at 250 VAC; 4 A at 30 VDC	1.5 A at 250 VAC; 2.5 A at 30 VDC	5 A at 250 VAC; 2 A at 30 VDC	3 A at 250 VAC; 2 A at 30 VDC
Rated carry current	8 A		4 A		5 A	
Max. switching voltage	380 VAC, 125 VDC		380 VAC, 125 VDC		380 VAC, 125 VDC	
Max. switching current	8 A		4 A		5 A	
Max. switching power	2,000 VA, 1,500 VA, 120 W	1,000 VA, 750 VA, 120 W	1,000 VA, 750 VA, 120 W	1,250 VA, 150 W	1,250 VA, 150 W	1 mA at 5 VDC
Failure rate (reference value)	100 mA at 5 VDC		100 mA at 5 VDC		1 mA at 5 VDC	

PCB/fully Sealed Relays

Note: F level: $\lambda_{60} = 0.1 \times 10^{-6}/\text{operation}$.

Number of poles	1 pole		2 poles	
Load	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)
Rated Load	5 A at 250 VAC; 5 A at 30 VDC	3.5 A at 250 VAC; 2.5 A at 30 VDC	3 A at 250 VAC; 3 A at 30 VDC	1.5 A at 250 VAC; 2 A at 30 VDC
Rated carry current	5 A		3 A	
Max. switching voltage	380 VAC, 125 VDC		380 VAC, 125 VDC	
Max. switching current	5 A		3 A	
Max. switching power	1,250 VA, 150 W	875 VA, 75 W	750 VA, 90 W	375 VA, 60 W
Failure rate (reference value)	100 mA at 5 VDC		10 mA at 5 VDC	

Note: F level: $\lambda_{60} = 0.1 \times 10^{-6}/\text{operation}$.

PCB Power Relay – G2R

Item	1 Pole	2 Poles
Contact resistance	30 m Ω max. (high-capacity type: 100 m Ω max.)	50 m Ω max.
Operate (set) time	15 ms max	
Release (reset) time	AC: 10 ms max.; DC: 5 ms max. (w/built-in diode: 20 ms max.)	
Max. operating frequency	Electrical: 18,000 operations/hr Mechanical: 1,800 operations/hr (under rated load)	
Insulation resistance	1,000 M Ω min. (at 500 VDC)	
Impulse withstand voltage	10 kV, 1 μ sec	
Insulation	Creepage (Typ) 10.0 mm	Distance 9.3 mm
Tracking Resistance (CTI)	175 V	
Dielectric strength	5,000 VAC, 50/60 Hz for 1 min between coil and contacts; 1,000 VAC, 50/60 Hz for 1 min between contacts of different polarity; 3,000 VAC, 50/60 Hz for 1 min between contacts of same polarity	5,000 VAC, 50/60 Hz for 1 min between contacts of same polarity
Vibration resistance	Destruction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude)	
Shock resistance	Destruction: 1,000 m/s ² Malfunction: 200 m/s ² when energized; 100 m/s ² when not energized	
Endurance	Mechanical: AC coil: 10,000,000 operations min.; DC coil: 20,000,000 operations min. (at 18,000 operations/hr) Electrical: 100,000 operations min. (at 1,800 operations/hr under rated load)	
Ambient temperature	Operating: -40°C to 70°C (with no icing) Operating: 5% to 85%	
Ambient humidity	Approx. 17 g	
Weight	Approx. 17 g	

Standard Relays

■ Characteristics

Power Relays

■ Accessories (Order Separately)

Connecting Sockets

Number of poles	Applicable Relay model	Track/surface-mounting Socket	Terminals	Model
1 pole	G2R-1-S(N)(D)(N)(ND)G2R-13; S(G2R-1A3-S)	P2RF-05-E	Solder terminals	P2R-05F, P2R-057P
2 poles	G2R-2-S(N)(D)(N)(ND)I; P2RF-08-E	P2RF-08	PCB terminals	P2R-08F, P2R-087P

Note: See Dimensions for details on socket size.

Applicable socket	Description	Model
Track connecting socket	Mounting track 1 m (1) x 7.3 mm (1); PFP-100N 1 m (1) x 16 mm (1); PFP-100N2	PFP-M
Back connecting socket	Spacer End plate P2R-P*	P2R-P*

*Used to mount several P2R-05A and P2R-08A connecting sockets side by side.

Mounting Track

121

PCB Power Relay – G2R

Item	General-purpose (single contact)		Bifurcated contact	
Number of poles	1 pole		2 poles	
Load	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)
Rated Load	8 A at 250 VAC; 8 A at 30 VDC	6 A at 250 VAC; 4 A at 30 VDC	4 A at 250 VAC; 4 A at 30 VDC	1.5 A at 250 VAC; 5 A at 30 VDC
Rated carry current	8 A		5 A	
Max. switching voltage	380 VAC, 125 VDC		380 VAC, 125 VDC	
Max. switching current	8 A		5 A	
Max. switching power	2,000 VA, 1,500 VA, 120 W	1,000 VA, 750 VA, 120 W	1,250 VA, 150 W	1 mA at 5 VDC
Failure rate (reference value)	100 mA at 5 VDC		10 mA at 5 VDC	

PCB/Fully Sealed Relays

Note: F level: $\lambda_{60} = 0.1 \times 10^{-6}/\text{operation}$.

Number of poles	1 pole		2 poles	
Load	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)	Resistive load ($\cos\phi = 1$)	Inductive load ($\cos\phi = 0.4$; L/R = 7 ms)
Rated Load	5 A at 250 VAC; 5 A at 30 VDC	3.5 A at 250 VAC; 2.5 A at 30 VDC	3 A at 250 VAC; 3 A at 30 VDC	1.5 A at 250 VAC; 2 A at 30 VDC
Rated carry current	5 A		3 A	
Max. switching voltage	380 VAC, 125 VDC		380 VAC, 125 VDC	
Max. switching current	5 A		3 A	
Max. switching power	1,250 VA, 150 W	875 VA, 75 W	750 VA, 90 W	10 mA at 5 VDC
Failure rate (reference value)	100 mA at 5 VDC		10 mA at 5 VDC	

Latching Relays

Note: F level: $\lambda_{60} = 0.1 \times 10^{-6}/\text{operation}$.

PCB Power Relay – G2R

Item	1 Pole	2 Poles
Contact resistance	30 m Ω max. (high-capacity type: 100 m Ω max.)	50 m Ω max.
Operate (set) time	15 ms max	
Release (reset) time	AC: 10 ms max.; DC: 5 ms max. (w/built-in diode: 20 ms max.)	
Max. operating frequency	Electrical: 18,000 operations/hr Mechanical: 1,800 operations/hr (under rated load)	
Insulation resistance	1,000 M Ω min. (at 500 VDC)	
Impulse withstand voltage	10 kV, 1 μ sec	
Insulation	Creepage (Typ) 10.0 mm	Distance 9.3 mm
Tracking Resistance (CTI)	175 V	
Dielectric strength	5,000 VAC, 50/60 Hz for 1 min between coil and contacts; 1,000 VAC, 50/60 Hz for 1 min between contacts of different polarity; 3,000 VAC, 50/60 Hz for 1 min between contacts of same polarity	5,000 VAC, 50/60 Hz for 1 min between contacts of same polarity
Vibration resistance	Destruction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude)	
Shock resistance	Destruction: 1,000 m/s ² Malfunction: 200 m/s ² when energized; 100 m/s ² when not energized	
Endurance	Mechanical: AC coil: 10,000,000 operations min.; DC coil: 20,000,000 operations min. (at 18,000 operations/hr) Electrical: 100,000 operations min. (at 1,800 operations/hr under rated load)	
Ambient temperature	Operating: -40°C to 70°C (with no icing) Operating: 5% to 85%	
Ambient humidity	Approx. 17 g	
Weight	Approx. 17 g	

Standard Relays

Characteristics

Power Relays

120

Applicable socket	Description	Model
Track connecting socket	Mounting track 1 m (1) x 7.3 mm (1); PFP-100N 1 m (1) x 16 mm (1); PFP-100N2	PFP-M
Back connecting socket	Spacer	PFP-S
	Mounting plate	P2R-P*

*Used to mount several P2R-05A and P2R-08A connecting sockets side by side.

Mounting Track

Note: See Dimensions for details on socket size.

Number of poles	Applicable Relay model	Track/surface-mounting Socket	Terminals	Model
1 pole	G2R-1-S(N)(D)(N)(ND)G2R-13; S(G2R-1A3-S)	P2RF-05-E	P2R-05F, P2R-057P	P2R-05A
2 poles	G2R-2-S(N)(D)(N)(ND)I	P2RF-08-E	P2R-08F, P2R-087P	P2R-08A

Connecting Sockets

Note: Values in the above table are initial values.

Item	1 Pole	2 Poles
Contact resistance	30 m Ω max. (high-capacity type: 100 m Ω max.)	50 m Ω max.
Operate (set) time	15 ms max	
Release (reset) time	AC: 10 ms max.; DC: 5 ms max. (w/built-in diode: 20 ms max.)	
Max. operating frequency	Electrical: 18,000 operations/hr Mechanical: 1,800 operations/hr (under rated load)	
Insulation resistance	1,000 M Ω min. (at 500 VDC)	
Impulse withstand voltage	10 kV, 1 μ sec	
Insulation	Creepage (Typ) 10.0 mm	Distance 9.3 mm
Tracking Resistance (CTI)	175 V	
Dielectric strength	5,000 VAC, 50/60 Hz for 1 min between coil and contacts; 1,000 VAC, 50/60 Hz for 1 min between contacts of different polarity; 3,000 VAC, 50/60 Hz for 1 min between contacts of same polarity	5,000 VAC, 50/60 Hz for 1 min between contacts of same polarity
Vibration resistance	Destruction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude)	
Shock resistance	Destruction: 1,000 m/s ² Malfunction: 200 m/s ² when energized; 100 m/s ² when not energized	
Endurance	Mechanical: AC coil: 10,000,000 operations min.; DC coil: 20,000,000 operations min. (at 18,000 operations/hr) Electrical: 100,000 operations min. (at 1,800 operations/hr under rated load)	
Ambient temperature	Operating: -40°C to 70°C (with no icing) Operating: 5% to 85%	
Ambient humidity	Approx. 17 g	
Weight	Approx. 17 g	

121

PCB Power Relay – G2R

Item		1 Pole	2 Poles
Contact resistance		30 mΩ max.	50 mΩ max.
Set time		20 ms max.	
Reset time		20 ms max.	
Min. set/reset signal width		30 ms max.	
Max. operating frequency		Electrical: 1,800 operations/hr (under rated load)	
Insulation resistance		1,000 MΩ min. (at 500 VDC)	
Dielectric strength		5,000 VAC, 50/60 Hz for 1 min between coil and contacts*, 1,000 VAC, 50/60 Hz for 1 min between contacts of same pole; 1,000 VAC, 50/60 Hz for 1 min between set and reset coil 1,000 VAC, 50/60 Hz for 1 min between set and reset coil between contacts of same pole 1,000 VAC, 50/60 Hz for 1 min between contacts of different poles 3,000 VAC, 50/60 Hz for 1 min between coil and contacts*, 5,000 VAC, 50/60 Hz for 1 min	
Vibration resistance		Destruction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude)	
Shock resistance		Destruction: 1,000 m/s ² (approx. 10G) Malfunction: Set: 500 m/s ² (approx. 50G); 200 m/s ² (approx. 20G) Reset: 100 m/s ² (approx. 10G)	
Endurance		Mechanical: 10,000,000 operations min (at 18,000 operations/hr under rated load) Electrical: 100,000 operations min. (at 1,800 operations/hr under rated load)	
Ambient temperature		Operating: -40°C to 70°C (with no icing)	
Ambient humidity		Operating: 5% to 85%	
Weight		Approx. 17 g (Quick-connect type: approx. 20g)	

Double-winding Latching Relays

Note: Values in the above table are the initial values.

PCB Power Relay – G2R

■ Approved Standards
 UL 508 (File No. E41643), CSA 22.2 No.14 (File No. LR31928)

Model	Contact form	Coil ratings	Contact ratings
G2R-1	S PDT	3 to 110 VDC	10 A, 30 VDC (resistive) 10 A, 250 VAC (general use) 10 A, 250 VAC (general use) TV-3 (NO contact only)
G2R-1-H			
G2R-1-S			
G2R-1-T			
G2R-1A	S P ST-NO		16 A, 30 VDC (resistive, NO contact only) 16 A, 250 VAC (general use, NO contact only) TV-3 (NO contact only); (1/3 hp, 120 VAC For UL)
G2R-1A-E	S PDT		5 A, 30 VDC (resistive) 5 A, 250 VAC (general use) TV-3 (NO contact only)
G2R-2	D PDT		10 A, 30 VDC (resistive) 10 A, 250 VAC (general use) TV-3 (NO contact only)
G2R-24			
G2R-2-H			
G2R-2-S			
G2R-2A	D P ST-NO		10 A, 30 VDC (resistive) 10 A, 250 VAC (general use) TV-3 (NO contact only)
G2R-2A-H			
G2R-2A-S			
G2R-1A-ASI	S P ST-NO		10 A, 30 VDC (resistive) 10 A, 250 VAC (general use) TV-5/TV-8 (NO contact only), (For UL) TV-8 (NO contact only); 1/4 hp, 125 VAC (For CSA)

Power Relays

PCB Power Relay – G2R

Item		1 Pole	2 Poles
Contact resistance		30 mΩ max.	50 mΩ max.
Set time		20 ms max.	
Reset time		20 ms max.	
Min. set/reset signal width		30 ms max.	
Max. operating frequency		Electrical: 1,800 operations/hr (under rated load)	
Insulation resistance		1,000 MΩ min. (at 500 VDC)	
Dielectric strength		5,000 VAC, 50/60 Hz for 1 min between coil and contacts*; 1,000 VAC, 50/60 Hz for 1 min between contacts of same pole; 1,000 VAC, 50/60 Hz for 1 min between set and reset coil	5,000 VAC, 50/60 Hz for 1 min between contacts of same pole 1,000 VAC, 50/60 Hz for 1 min between set and reset coil
Vibration resistance		Destruction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude) Malfunction: 10 to 55 to 10 Hz, 0.75mm single amplitude (1.5mm double amplitude)	
Shock resistance		Destruction: 1,000 m/s ² (approx. 10G) Malfunction: Set: 500 m/s ² (approx. 50G); 200 m/s ² (approx. 20G) Reset: 100 m/s ² (approx. 10G)	
Endurance		Mechanical: 10,000,000 operations min (at 1,800 operations/hr under rated load) Electrical: 100,000 operations min. (at 1,800 operations/hr under rated load)	
Ambient temperature		Operating: -40°C to 70°C (with no icing)	
Ambient humidity		Operating: 5% to 85%	
Weight		Approx. 17 g (Quick-connect type: approx. 20g)	

Double-winding Latching Relays

Note: Values in the above table are the initial values.

PCB Power Relay – G2R

Model	Contact form	Coil ratings	Contact ratings
G2R-1	S PDT	3 to 110 VDC	10 A, 30 VDC (resistive) 10 A, 250 VAC (general use) 10 A, 250 VAC (general use) TV-3 (NO contact only)
G2R-1-H			
G2R-1-S			
G2R-1-T			
G2R-1A	SPST-NO		16 A, 30 VDC (resistive, NO contact only) 16 A, 250 VAC (general use, NO contact only) TV-3 (NO contact only); (1/3 hp, 120 VAC For UL)
G2R-1A-E	SPST-NO		5 A, 30 VDC (resistive) 5 A, 250 VAC (general use) TV-3 (NO contact only)
G2R-2			
G2R-24	DPDT		
G2R-2-H			
G2R-2-S			
G2R-2A	DPST-NO		
G2R-2A4			
G2R-2A-H			
G2R-2A-S			
G2R-1A-ASI	SPST-NO		10 A, 30 VDC (resistive) 10 A, 250 VAC (general use) TV-5/TV-8 (NO contact only), (For UL) 10 A, 250 VAC (general use) TV-8 (NO contact only); 1/4 hp, 125 VAC (For CSA)

■ Approved Standards
UL 508 (File No. E41643), CSA 22.2 No.14 (File No. LR31928)

Power Relays

PCB Power Relay – G2R

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC	16 A, 250 VAC1 (AgShIn contact)
1 pole	3 to 240 VAC	16 A, 30 VDC1 (AgShIn contact)
2 poles		10 A, 250 VAC1 5 A, 250 VAC3 10 A, 30 VDC1
2 poles		5 A, 250 VAC1 2 A, 380 VAC1 5 A, 30 VDC1

SEV

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC	10/80 A, 250 VAC
1 pole	3 to 240 VAC	3/100 A, 250 VAC
2 poles		16/128 A, 250 VAC (AgShIn contact)
2 poles		5/40 A, 250 VAC

SEMKO

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC, 6 VAC to 240 VAC (for Standard coil)	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
1 pole	3 to 48 VDC (for K, U coil) 3 to 70 VDC (for H coil)	10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0) (AgShIn contact)
2 poles		8 A, 250 VAC (cosφ = 0.4) 5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms) 2.5 A, 250 VAC (cosφ = 0.4)

TÜV (EN61810-1)

Contact form	Coil ratings	Contact ratings
1 pole	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC 12, 18, 24, 48, 50, 100/(10), 110, 120, 200/(20), 220, 230, 240 VAC	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
2 poles	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC 12, 18, 24, 48, 50, 100/(10), 110, 120, 200/(20), 220, 230, 240 VAC	5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms)

EN 61810-1 (VDE)

Contact form	Coil ratings	Contact ratings
1 pole	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC 12, 18, 24, 48, 50, 100/(10), 110, 120, 200/(20), 220, 230, 240 VAC	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
2 poles	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC 12, 18, 24, 48, 50, 100/(10), 110, 120, 200/(20), 220, 230, 240 VAC	5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms)

Contact ratings
10 A, 30 VDC (resistive)
10 A, 250 VAC (general use, NO contact only)
16 A, 250 VAC (general use, NO contact only)
TV-3 (NO contact only)
5 A, 30 VDC (resistive)
5 A, 250 VAC (general use)
TV-3 (NO contact only)
10 A, 30 VDC (resistive, NO contact only)
16 A, 250 VAC (general use, NO contact only)
TV-3 (NO contact only)
5 A, 30 VDC (resistive)
10 A, 250 VAC (general use)
TV-8 (NO contact only); 1/4 hp, 125 VAC

PCB Power Relay – G2R

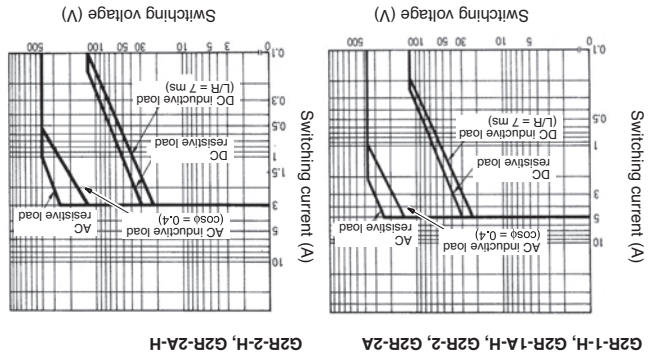
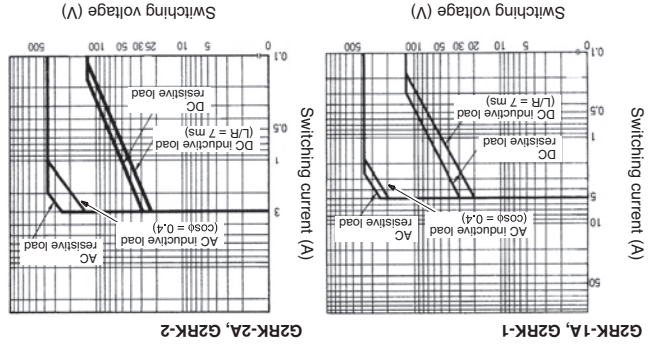
Maximum Switching Power
Flux Protection/Plug-in Relays
G2R-1, G2R-1A, G2R-1-T, G2R-1A-T

G2R-1-E, G2R-1A-E
G2R-1-Z, G2R-1A-Z

Power Relays

Engineering Data

125



PCB Power Relay – G2R

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC	16 A, 250 VAC1 (AgShIn contact)
1 pole	3 to 240 VAC	16 A, 30 VDC1 (AgShIn contact)
2 poles		10 A, 250 VAC1 5 A, 250 VAC3 10 A, 30 VDC1
2 poles		5 A, 250 VAC1 2 A, 380 VAC1 5 A, 30 VDC1

SEV

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC	10/80 A, 250 VAC
1 pole	3 to 240 VAC	3/100 A, 250 VAC
2 poles		16/128 A, 250 VAC (AgShIn contact)
2 poles		5/40 A, 250 VAC

SEMKO

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC, 6 VAC to 240 VAC	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
1 pole	3 to 48 VDC (for K, U coil) 3 to 70 VDC (for H coil)	(AgShIn contact)
2 poles		8 A, 250 VAC (cosφ = 0.4) 5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms) 2.5 A, 250 VAC (cosφ = 0.4)

TÜV (EN61810-1)

Contact form	Coil ratings	Contact ratings
1 pole	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
1 pole	12, 18, 24, 48, 50, 100/(110, 110, 120, 200/(220), 220, 230, 240 VAC	
2 poles	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC	5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms)

EN 61810-1 (VDE)

Contact form	Coil ratings	Contact ratings
1 pole	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
1 pole	12, 18, 24, 48, 50, 100/(110, 110, 120, 200/(220), 220, 230, 240 VAC	
2 poles	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC	5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms)

Contact ratings
10 A, 30 VDC (resistive)
10 A, 250 VAC (general use, NO contact only)
16 A, 30 VDC (resistive, NO contact only)
16 A, 250 VAC (general use, NO contact only)
TV-3 (NO contact only)
5 A, 30 VDC (resistive)
5 A, 250 VAC (general use)
TV-3 (NO contact only)
10 A, 30 VDC (resistive)
10 A, 250 VAC (general use)
TV-8 (NO contact only); 1/4 hp, 125 VAC

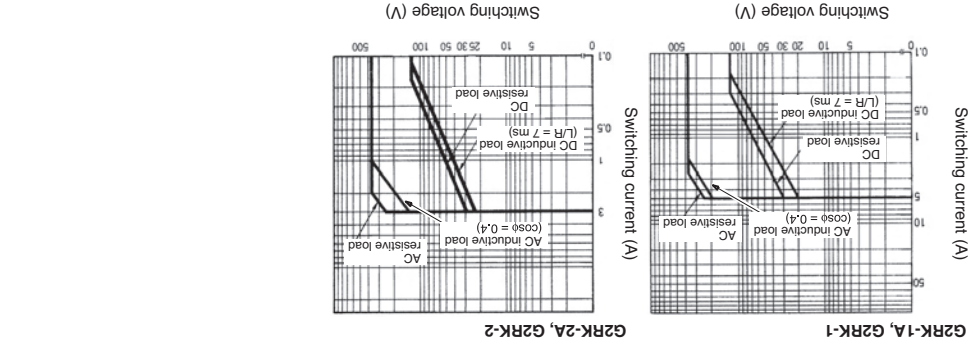
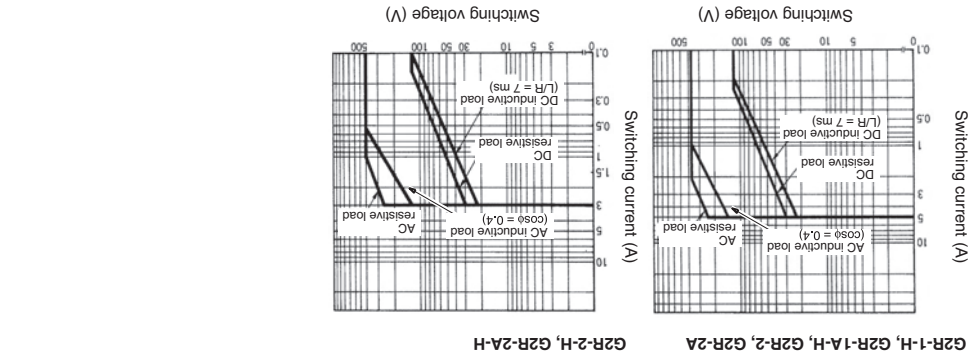
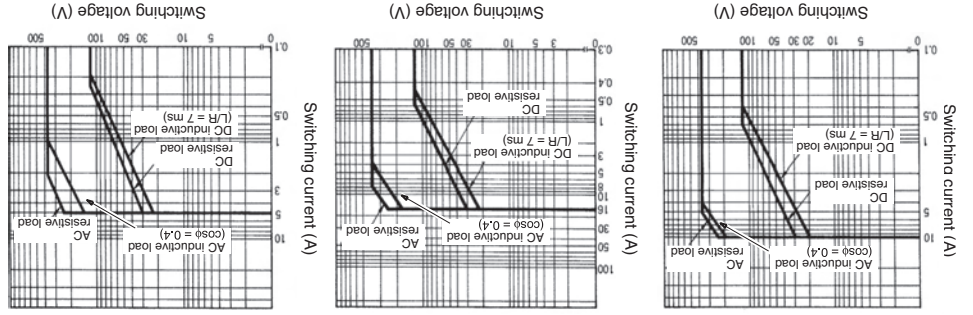
PCB Power Relay – G2R

Maximum Switching Power
Flux Protection/Plug-in Relays

Model	AC inductive load (cosφ = 0.4)	AC resistive load	DC inductive load (L/R = 7 ms)	DC resistive load
G2R-1, G2R-1A, G2R-1-T, G2R-1A-T	100 A	100 A	100 A	100 A
G2R-1-E, G2R-1A-E	100 A	100 A	100 A	100 A
G2R-1-Z, G2R-1A-Z	100 A	100 A	100 A	100 A

Engineering Data

Power Relays



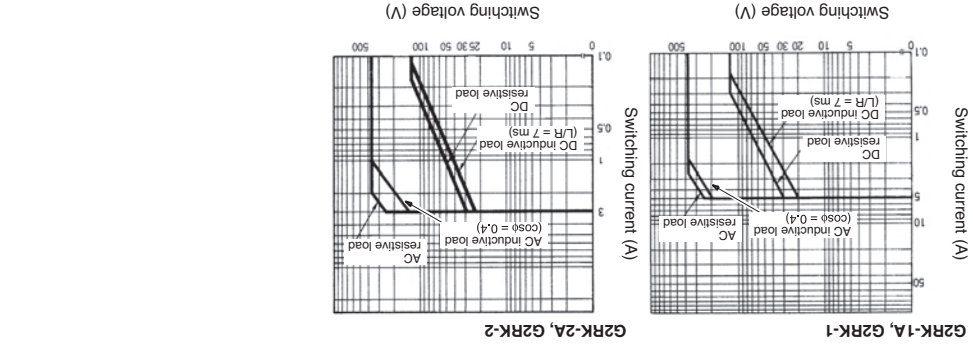
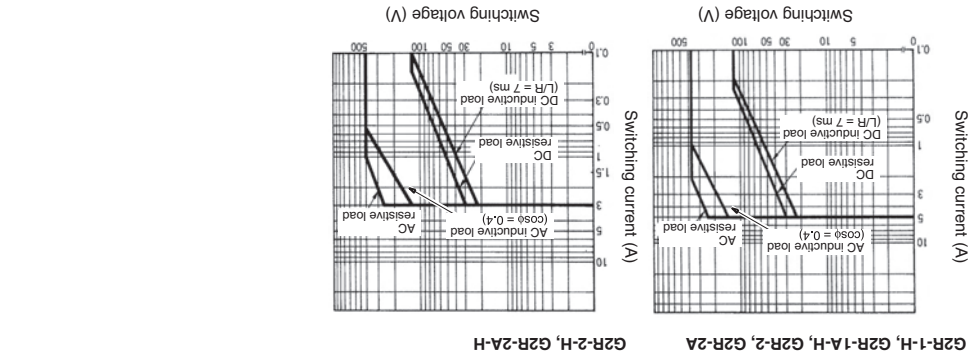
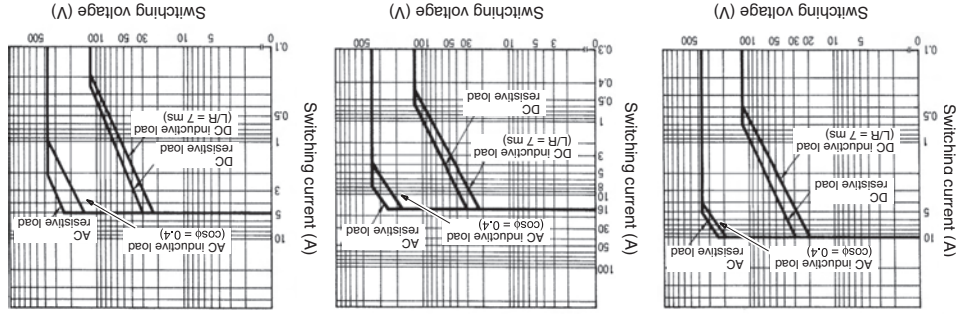
PCB Power Relay – G2R

Maximum Switching Power
Flux Protection/Plug-in Relays

Model	AC inductive load (cosφ = 0.4)	AC resistive load	DC inductive load (L/R = 7 ms)	DC resistive load
G2R-1, G2R-1A, G2R-1-T, G2R-1A-T	100 A	100 A	100 A	100 A
G2R-1-E, G2R-1A-E	100 A	100 A	100 A	100 A
G2R-1-Z, G2R-1A-Z	100 A	100 A	100 A	100 A

Engineering Data

Power Relays



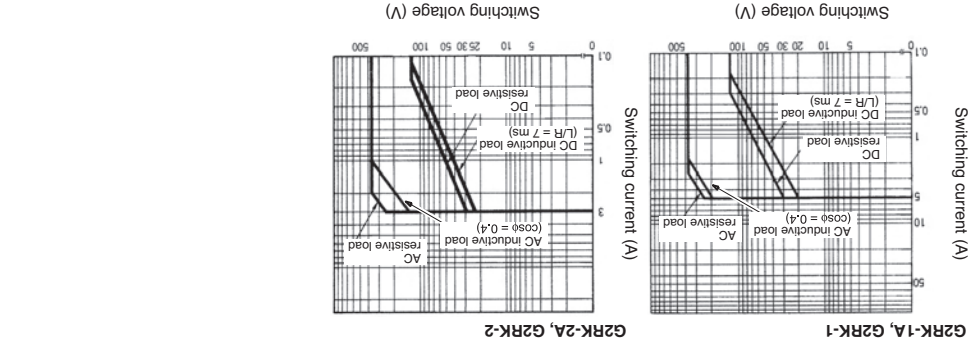
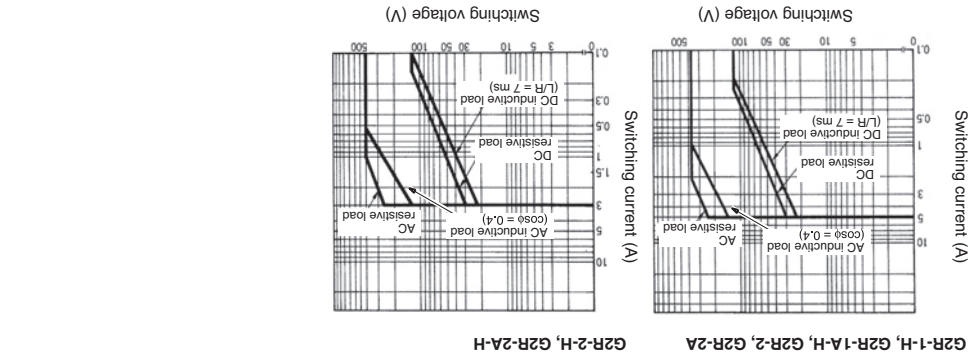
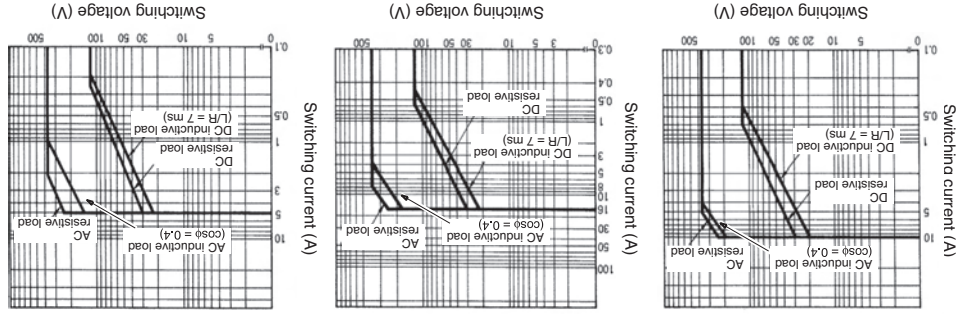
PCB Power Relay – G2R

Maximum Switching Power
Flux Protection/Plug-in Relays

Model	AC inductive load (cosφ = 0.4)	AC resistive load	DC inductive load (L/R = 7 ms)	DC resistive load
G2R-1, G2R-1A, G2R-1-T, G2R-1A-T	100 A	100 A	100 A	100 A
G2R-1-E, G2R-1A-E	100 A	100 A	100 A	100 A
G2R-1-Z, G2R-1A-Z	100 A	100 A	100 A	100 A

Engineering Data

Power Relays



PCB Power Relay – G2R

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC	16 A, 250 VAC1 (AgShIn contact)
1 pole	3 to 240 VAC	16 A, 30 VDC1 (AgShIn contact)
2 poles		10 A, 250 VAC1 5 A, 250 VAC3 10 A, 30 VDC1
2 poles		5 A, 250 VAC1 2 A, 380 VAC1 5 A, 30 VDC1

SEV

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC	10/80 A, 250 VAC
1 pole	3 to 240 VAC	3/100 A, 250 VAC
2 poles		16/128 A, 250 VAC (AgShIn contact)
2 poles		5/40 A, 250 VAC

SEMKO

Contact form	Coil ratings	Contact ratings
1 pole	3 to 110 VDC, 6 VAC to 240 VAC	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
1 pole	3 to 48 VDC (for K, U coil) 3 to 70 VDC (for H coil)	(AgShIn contact)
2 poles		8 A, 250 VAC (cosφ = 0.4) 5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms) 2.5 A, 250 VAC (cosφ = 0.4)

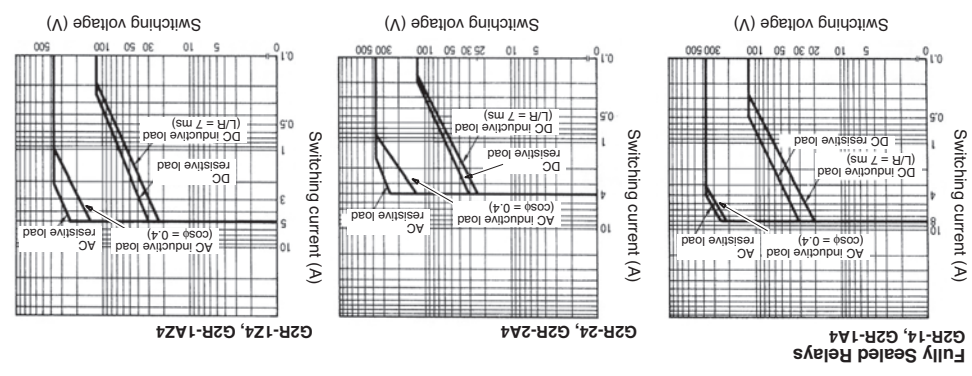
TÜV (EN61810-1)

Contact form	Coil ratings	Contact ratings
1 pole	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
1 pole	12, 18, 24, 48, 50, 100/(110, 110, 120, 200/(220), 220, 230, 240 VAC	
2 poles	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC	5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms)

EN 61810-1 (VDE)

Contact form	Coil ratings	Contact ratings
1 pole	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC	10 A, 250 VAC (cosφ = 1.0) 10 A, 30 VDC (0 ms) 16 A, 250 VAC (cosφ = 1.0)
1 pole	12, 18, 24, 48, 50, 100/(110, 110, 120, 200/(220), 220, 230, 240 VAC	
2 poles	5, 6, 9, 12, 18, 24, 48, 60, 100, 110 VDC	5 A, 250 VAC (cosφ = 1.0) 5 A, 30 VDC (0 ms)

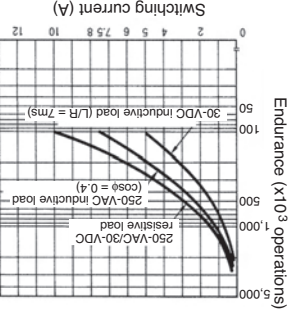
PCB Power Relay – G2R



Fully Sealed Relays
G2R-14, G2R-1A4

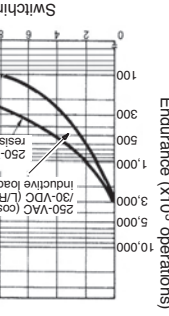
Endurance

Flux Protection/Plug-in Relays



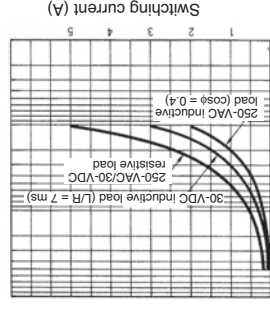
G2R-1-H, G2R-1A-H, G2R-2
G2R-2A

Endurance



G2R-2-H, G2R-2A-H

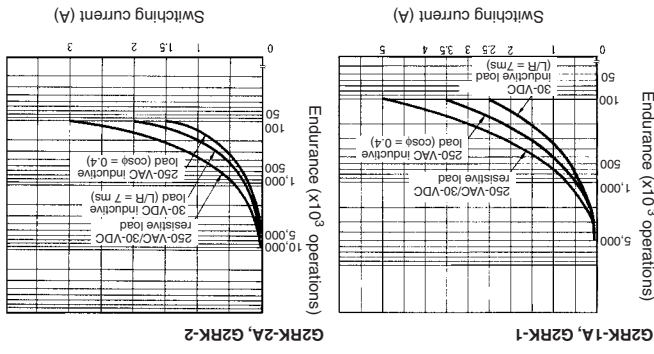
Endurance



G2R-1Z, G2R-1AZ

PCB Power Relay – G2R

Engineering Data (cont.)



G2RK-1A, G2RK-1
G2RK-2A, G2RK-2

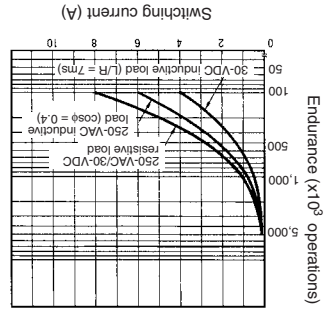
Power Relays



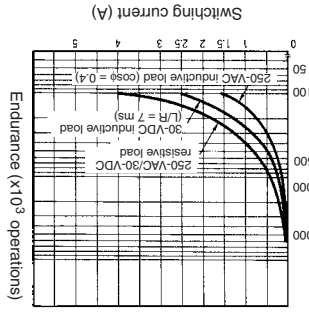
G2R-1Z4, G2R-1AZ4

G2R-24, G2R-2A4

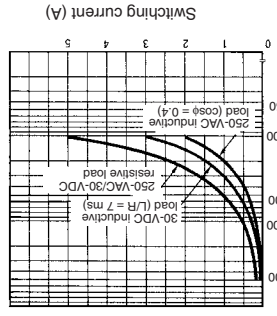
Fully sealed Relays



G2R-14, G2R-1A4

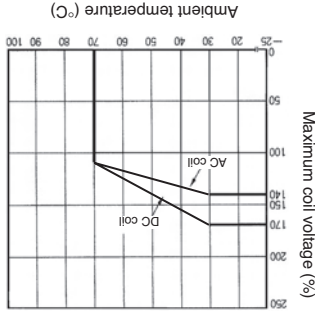


G2R-24, G2R-2A4



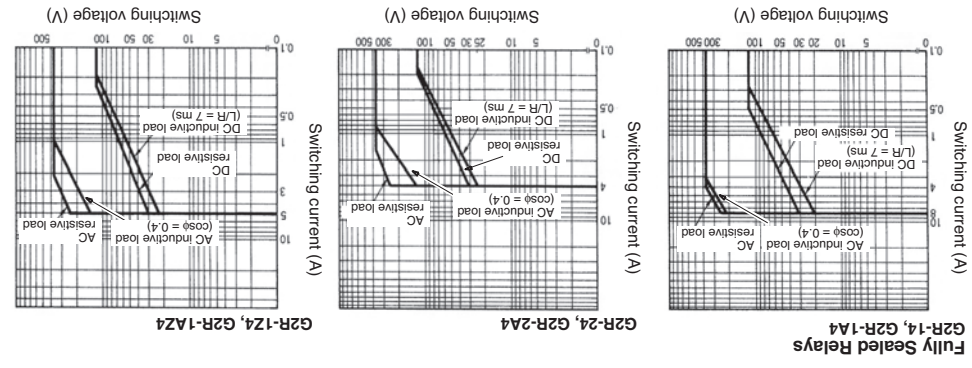
G2R-1Z4, G2R-1AZ4

Ambient Temperature vs Maximum Coil Voltage



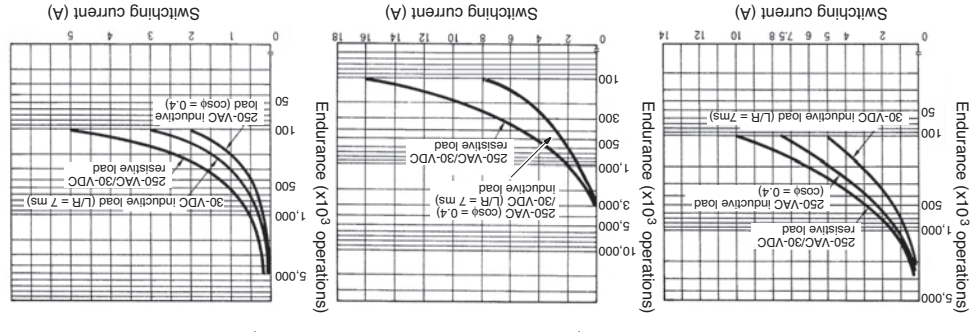
Note: The maximum coil voltage refers to the maximum value in a varying range of operating power voltage, not a continuous voltage.

PCB Power Relay – G2R



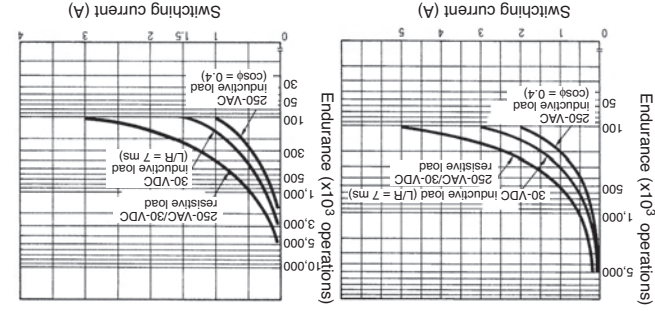
Endurance

Flux Protection/Plug-in Relays

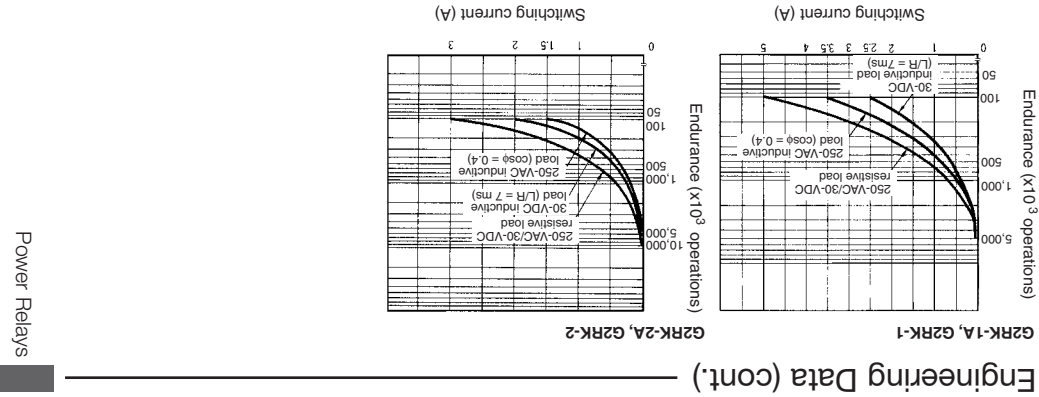


Endurance

G2R-1-H, G2R-1A-H, G2R-2



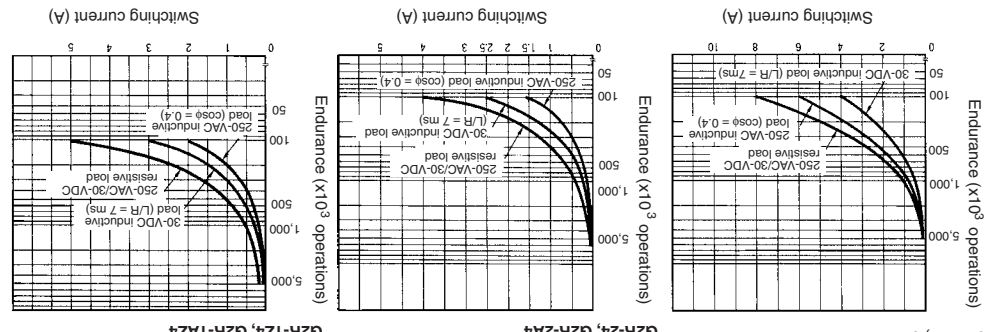
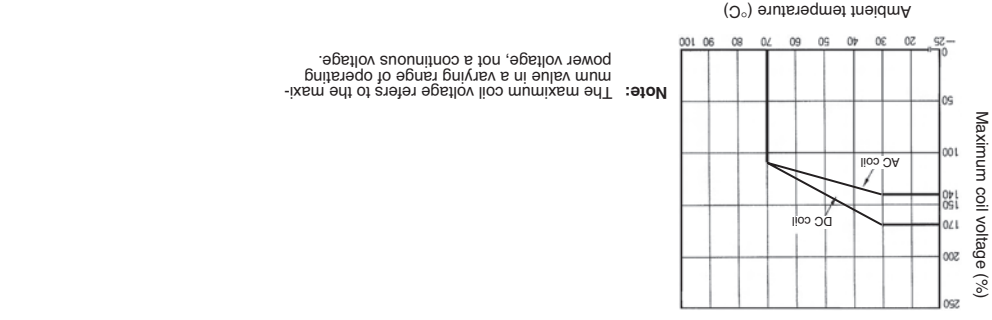
PCB Power Relay – G2R



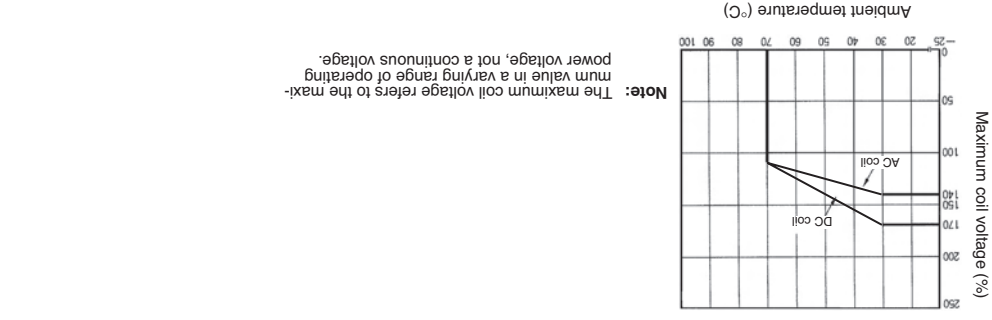
Engineering Data (cont.)

Power Relays

Ambient Temperature vs Maximum Coil Voltage



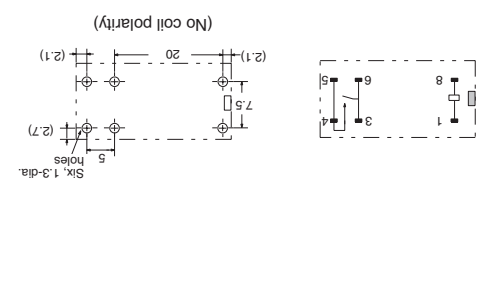
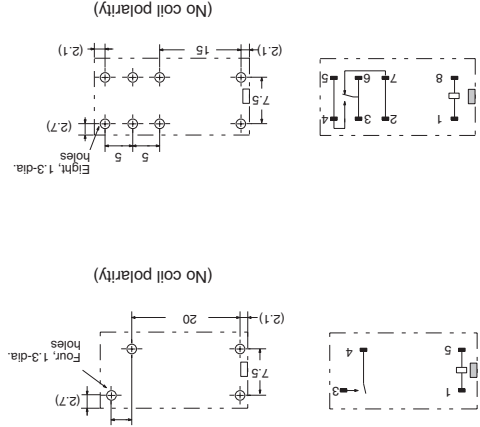
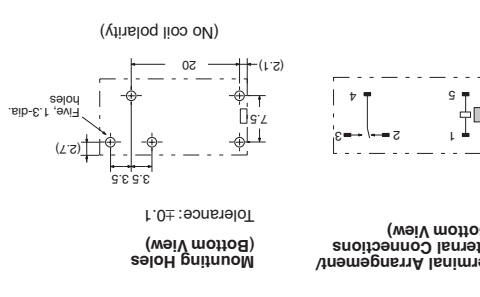
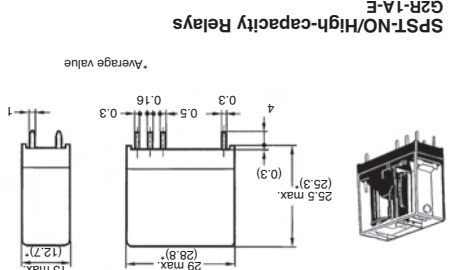
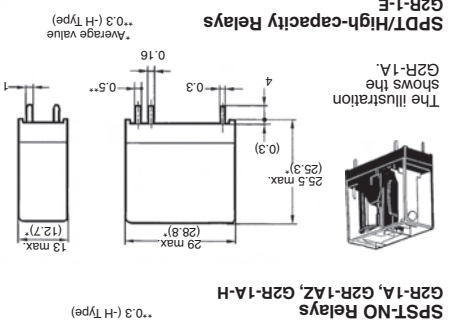
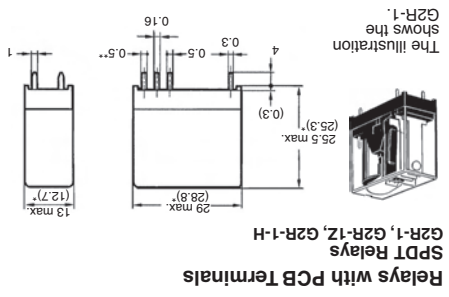
Ambient Temperature vs Maximum Coil Voltage



PCB Power Relay – G2R

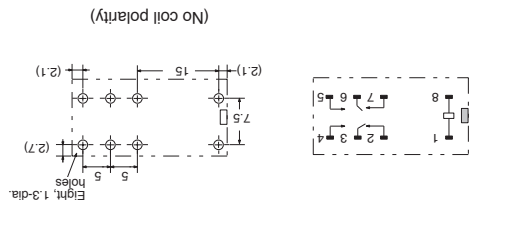
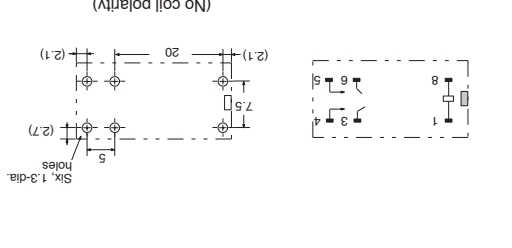
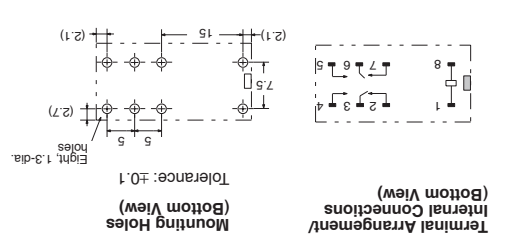
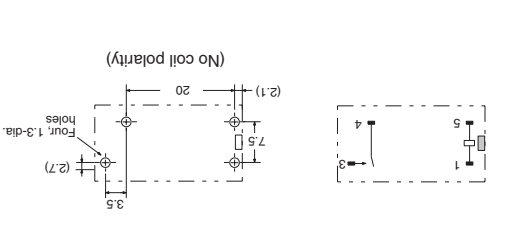
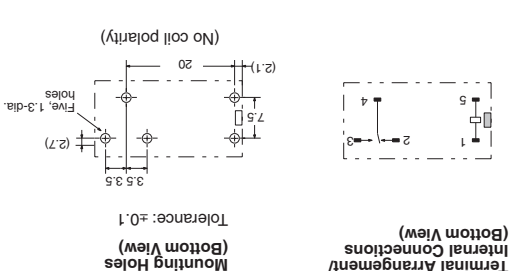
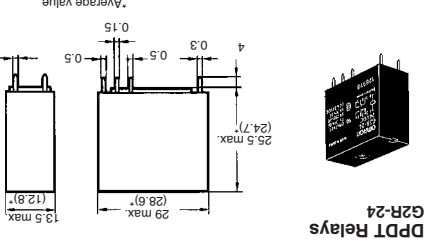
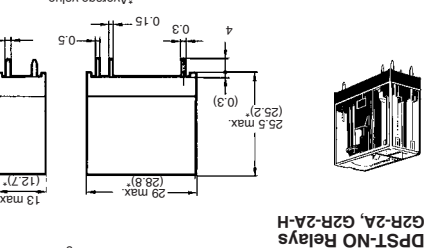
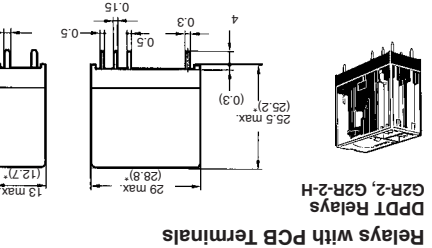
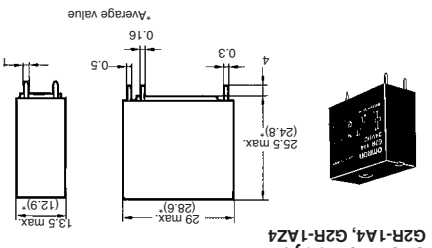
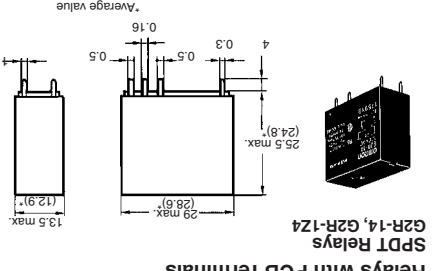
Dimensions

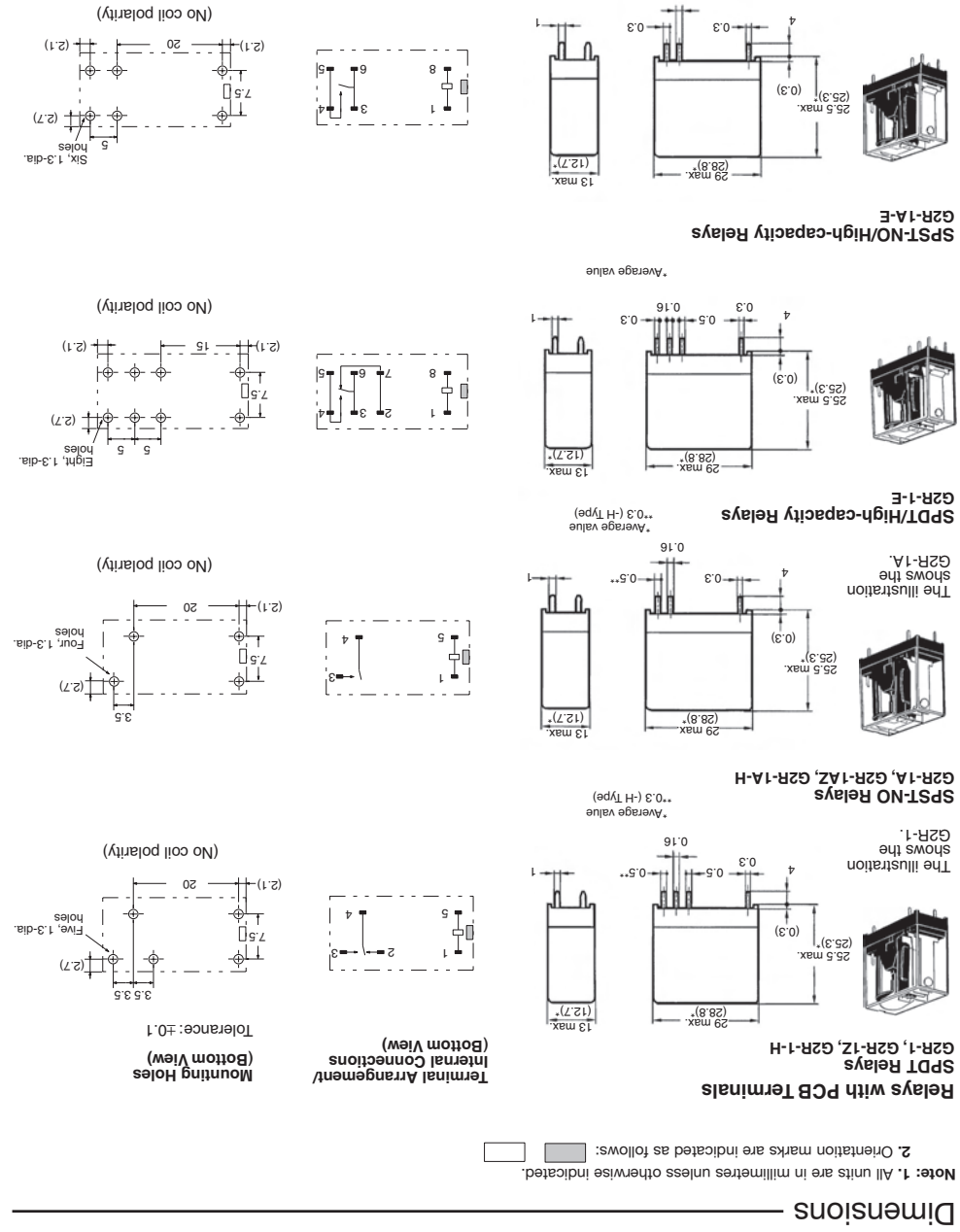
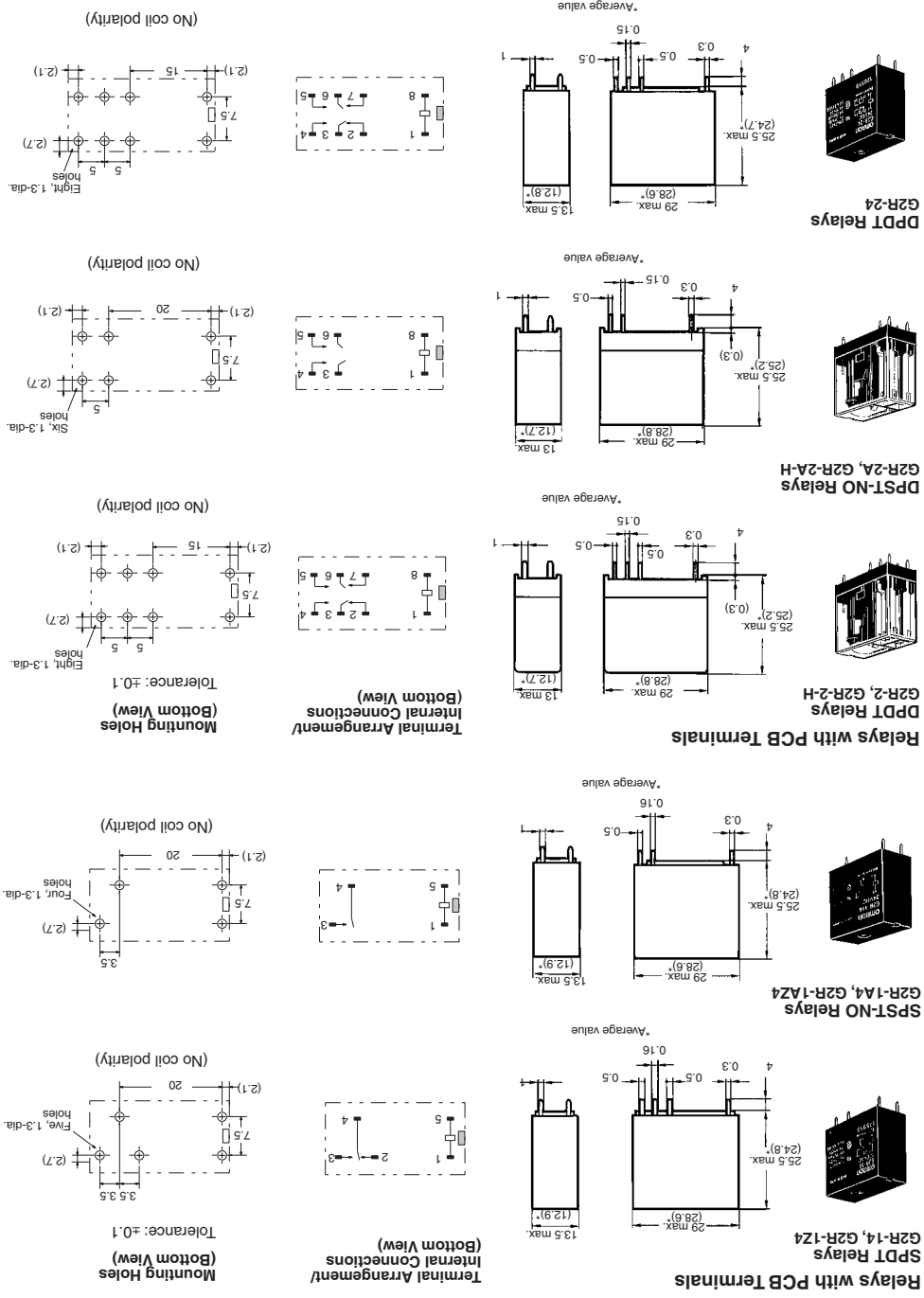
Note: 1. All units are in millimetres unless otherwise indicated.
2. Orientation marks are indicated as follows:



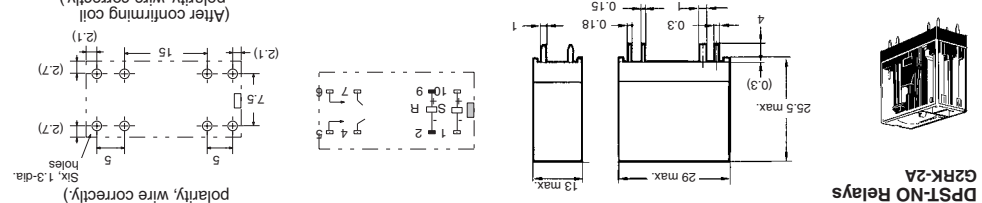
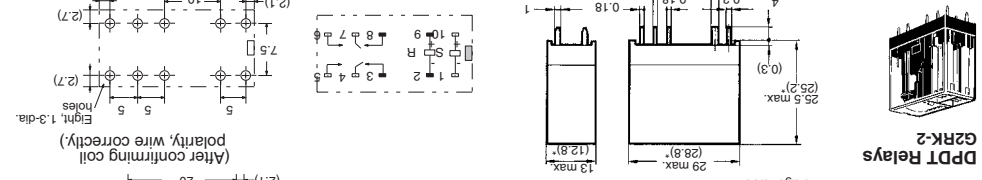
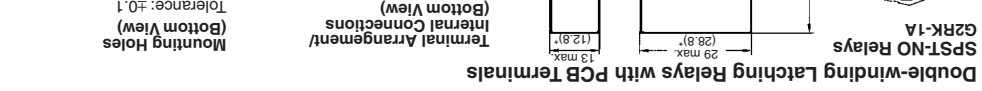
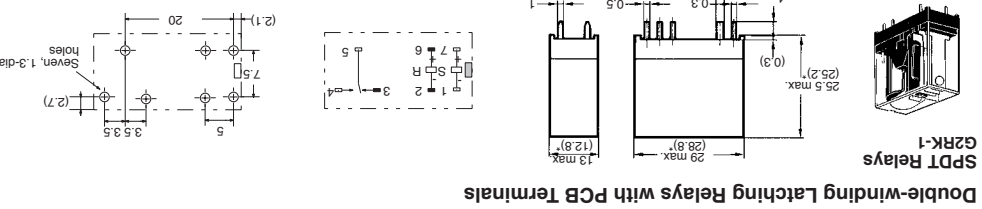
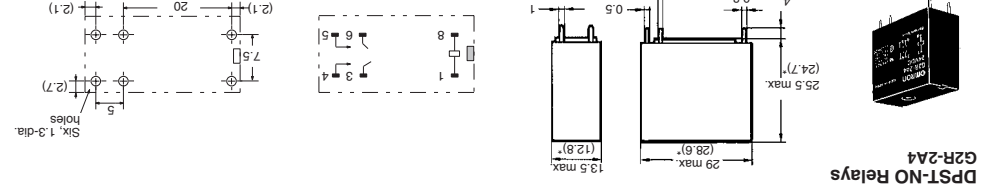
PCB Power Relay – G2R

Relays with PCB Terminals

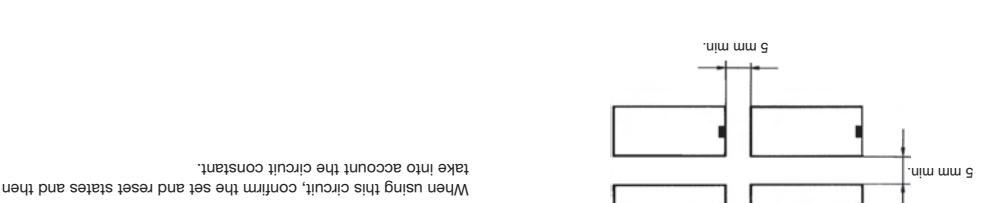
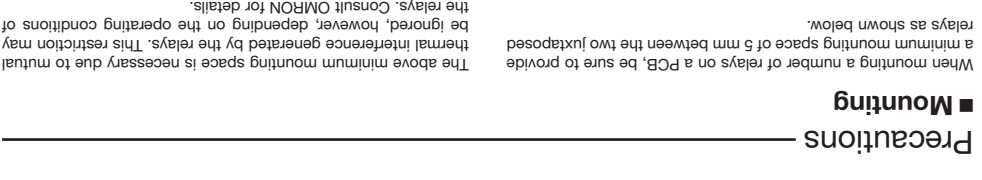
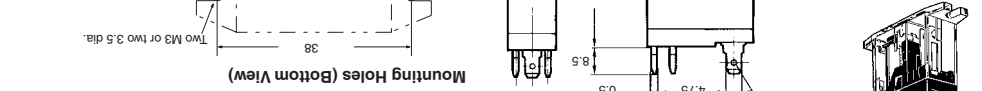
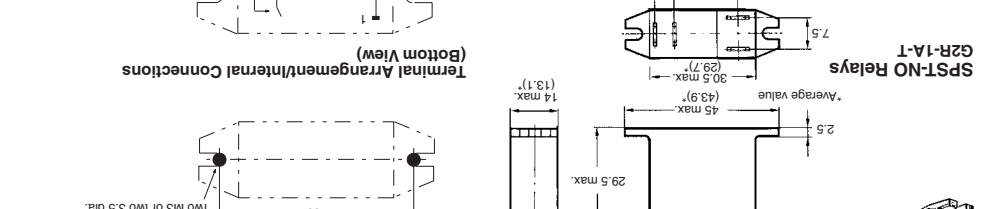
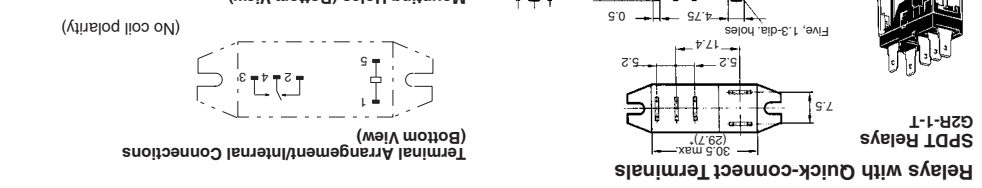




PCB Power Relay - G2R



PCB Power Relay - G2R



Precautions

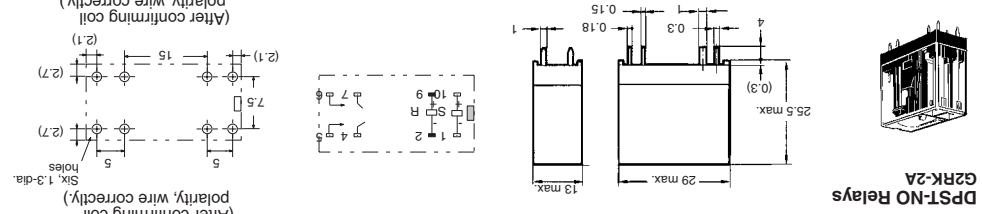
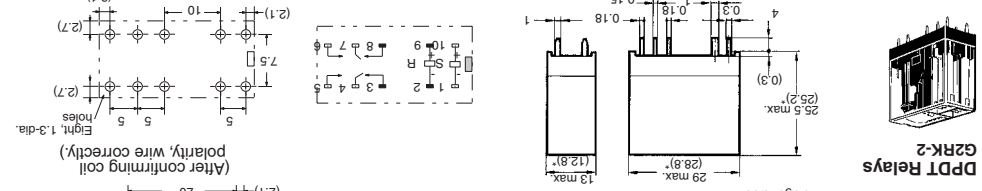
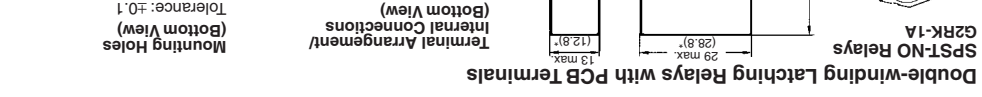
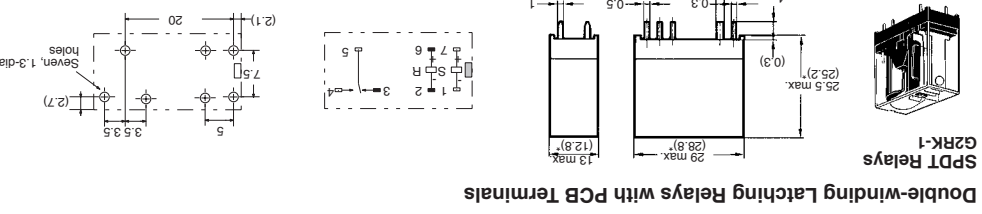
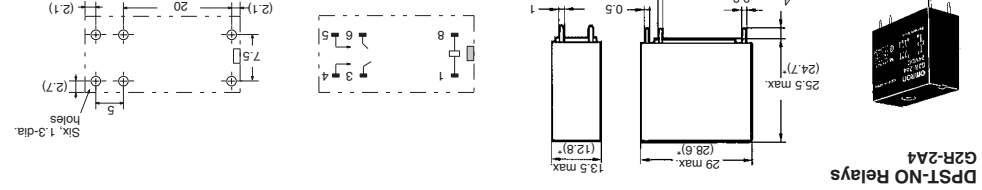
When mounting a number of relays on a PCB, be sure to provide a minimum mounting space of 5 mm between the two juxtaposed relays as shown below.

The above minimum mounting space is necessary due to mutual thermal interference generated by the relays. This restriction may be ignored, however, depending on the operating conditions of the relays. Consult OMRON for details.

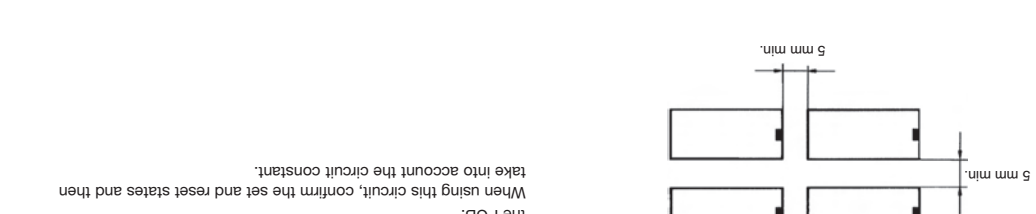
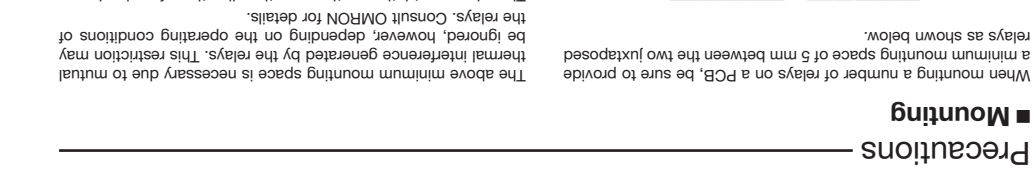
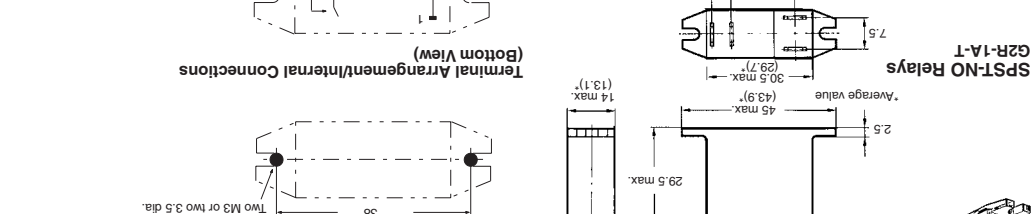
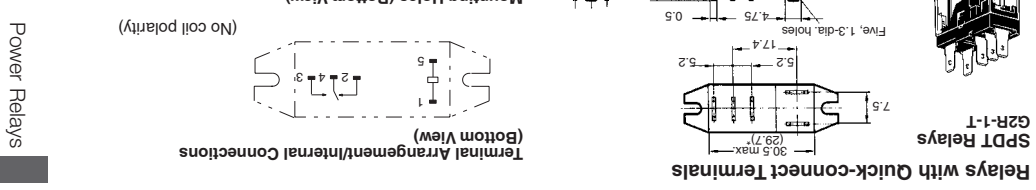
There is no restriction on the mounting direction of each relay on the PCB.

When using this circuit, confirm the set and reset states and then take into account the circuit constant.

PCB Power Relay - G2R



PCB Power Relay - G2R



Precautions

When mounting a number of relays on a PCB, be sure to provide a minimum mounting space of 5 mm between the two juxtaposed relays as shown below.

5 mm min.

5 mm min.

The above minimum mounting space is necessary due to mutual thermal interference generated by the relays. This restriction may be ignored, however, depending on the operating conditions of the relays. Consult OMRON for details.

There is no restriction on the mounting direction of each relay on the PCB.

When using this circuit, confirm the set and reset states and then take into account the circuit constant.

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[1616359-9](#) [6-1616360-9](#) [6-1616931-6](#) [6-1617039-1](#) [6-1617052-1](#) [6-1617090-2](#) [6-1617090-5](#) [6-1617347-5](#) [6-1617353-3](#) [6-1617801-8](#) [6-](#)
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