

## MAIN FEATURE

1. Single contact Form (SPST) series Relay offers switching capacity 30A in small size.
2. Dust cover, sealed & unclosed cover types are available.
3. UL Class F insulation available.
4. Halogen Free series available.
5. Comply with RoHS and REACH regulations.

## CONTACT RATING

Load Type		GU (DM)	GU (DB)	GU (D)	GU (D1)
Rated Load (Resistive)		30A 120VAC	10A 240VAC	NC: 20A 240VAC	NC: 10A 240VAC
		30A 240VAC	10A 30VDC	10A 30VDC	10A 30VDC
		30A 30VDC	-	NO: 30A 240VAC	NO: 20A 240VAC
		-	-	20A 30VDC	20A 30VDC
Contact Capacity	NO	TV-8 120VAC	-	TV-8 120VAC	TV-8 120VAC
		1-1/2HP 240VAC	-	1-1/2HP 240VAC	1-1/2HP 240VAC
	NC	-	1/2HP 240VAC	1/2HP 240VAC	1/2HP 240VAC
Rated Carrying Current		30A	10A	30A	20A
Max. Allowable Voltage		AC 240V	AC 240V	AC 240V	AC 240V
Max. Allowable Current		30A	10A	30A	20A
Max. Allowable Power Force		7,200VA	2,400VA	7,200VA	4,800VA
		900W	300W	600W	600W
Contact Material		Ag Alloy	Ag Alloy	Ag Alloy	Ag Alloy
Contact Form		SPST	SPST	SPDT	SPDT

## APPLICATION

Domestic Appliances, Heating, Ventilating and Conditioning System, Car Control Switching Box, General Power Switching Applications.

## PERFORMANCE (AT INITIAL VALUE)

- Contact Resistance ..... 100mΩMax. @1A,6VDC
- Operate Time..... 15 mSec. Max.
- Release Time ..... 10 mSec. Max.
- Dielectric Strength:
  - Between Coil & Contact..... 1,500VAC at 50/60 Hz for one minute
  - Between Contacts ..... 1,500VAC at 50/60 Hz for one minute
- Insulation Resistance ..... 100 MegaΩ Min. at 500VDC
- Max. On/Off Switching:
  - Electrical ..... 6 Cycles per Minute
  - Mechanical..... 300 Cycles per Minute
- Temperature Range ..... -25~+55°C
- Humidity Range ..... 45~85% RH.
- Coil Temperature Rise .... 60°C Max.
- Vibration:
  - Destruction ..... 10 to 55 to 10 Hz,0.75 mm single amplitude (1.5mm double amplitude)
  - Malfunction ..... 10 to 55 to 10 Hz,0.75 mm single amplitude (1.5mm double amplitude)
- Shock:
  - Destruction ..... 1,000 m/S<sup>2</sup>
  - Malfunction ..... 50 m/S<sup>2</sup>
- Life Expectancy:
  - Mechanical ..... 10<sup>7</sup> Operations at No Load condition
  - Electrical ..... 10<sup>5</sup> Operations at Resistive Load
- Weight ..... Flow Solder Type: 27.2g  
Open Type: 21.6g

## SAFETY STANDARD & FILE NUMBER

- UL & C-UL ..... E141060

**COIL SPECIFICATION (AT 20°C)**

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
GU-D	5	185	27	Abt. 0.93	80% Maximum	5% Minimum	150% (for short time carrying current)
	6	150	40				
	9	93	97				
	12	77	155				
	15	59	255				
	18	47	380				
	24	36	660				
	36	25.8	1,390				
	48	19.4	2,480				
	110	8.5	13,000				

**ORDERING INFORMATION**

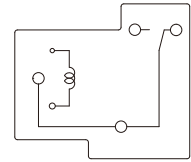
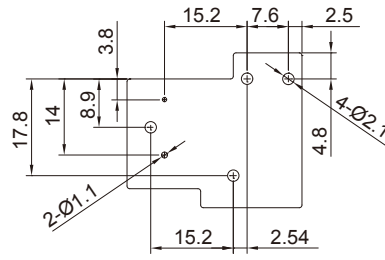
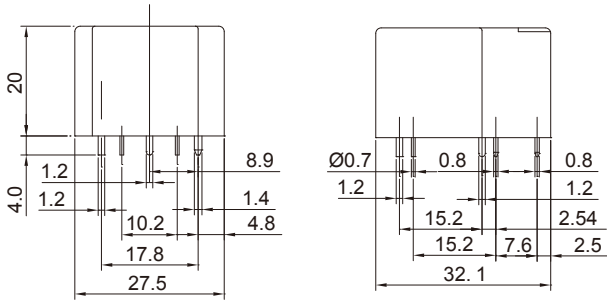
<b>GU - SS - 1 12 D M CF 1 - 5</b>	<b>Terminal Type:</b>	<b>Nil:</b> 2 Common <b>5:</b> 1 Common
	<b>Load rated(For GU-D Series only):</b>	<b>Nil:</b> NO:30A/NC:20A. <b>1:</b> NO:20A/NC:10A.
	<b>Insulation System:</b>	<b>Nil:</b> Standard Class <b>CF:</b> Class F
	<b>Contact Form:</b>	<b>Nil:</b> One Form C <b>M:</b> One Form A <b>B:</b> One Form B <b>D:</b> Standard DC
	<b>Coil Type:</b>	
	<b>Coil Voltage:</b>	<b>05:</b> 5V, <b>06:</b> 6V, <b>09:</b> 9V, <b>12:</b> 12V, <b>15:</b> 15V, <b>18:</b> 18V, <b>24:</b> 24V, <b>36:</b> 36V, <b>48:</b> 48V, <b>110:</b> 110V
	<b>Number of Pole:</b>	<b>1:</b> One Pole
	<b>Type of Sealing:</b>	<b>Nil:</b> RT 0 Unclosed <b>SS:</b> RT II Flux Proofed <b>SH:</b> RT III Wash Tight
	<b>Type:</b>	<b>GU</b>

**CLASSIFICATION**

Model	GU		
Insulation System	Nil: Standard Class / CF: Class F		
Contact Form	1C	1A	1B
Unclosed Relay	GU-1□□D(CF)(1)	GU-1□□DM(CF)	GU-1□□DB(CF)
Flux Proofed Type	GU-SS/SH-1□□D(CF)(1)	GU-SS/SH-1□□DM(CF)	GU-SS/SH-1□□DB(CF)

**DIMENSION ( ≤ 5mm ± 0.2mm, > 5mm ± 0.3mm, the tolerance of PCB thru hole: +0.1mm)**

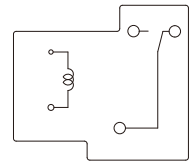
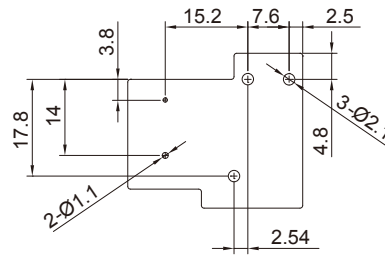
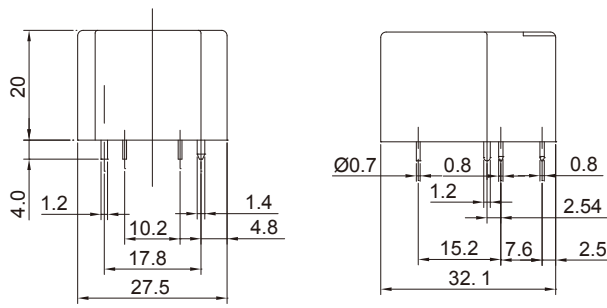
### GU-D : 2 Common terminals : 6 PIN



Bottom View

P.C.B Layout  
Bottom View

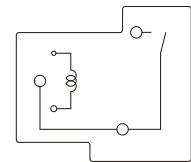
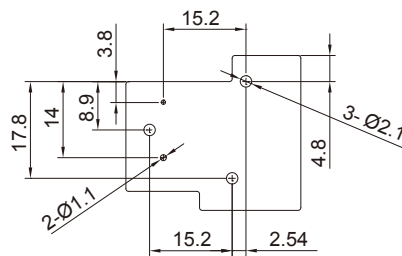
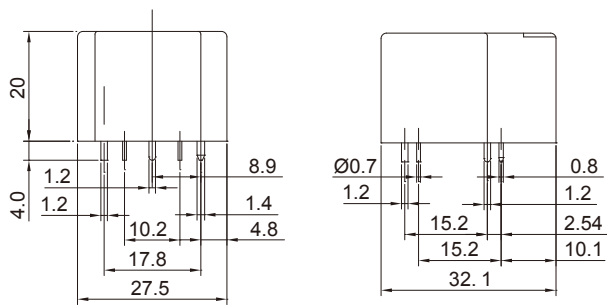
### GU-D : 1 Common terminal : 5 PIN



Bottom View

P.C.B Layout  
Bottom View

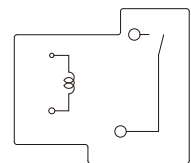
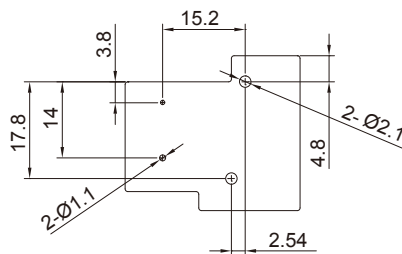
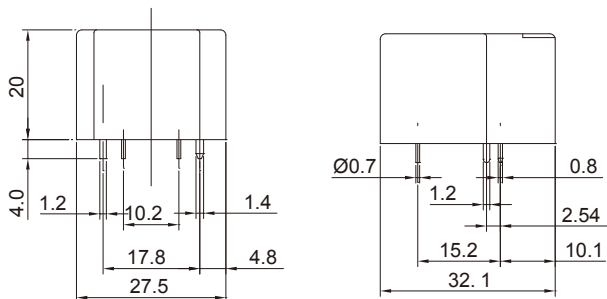
### GU-DM : 2 Common terminals : 5 PIN



Bottom View

P.C.B Layout  
Bottom View

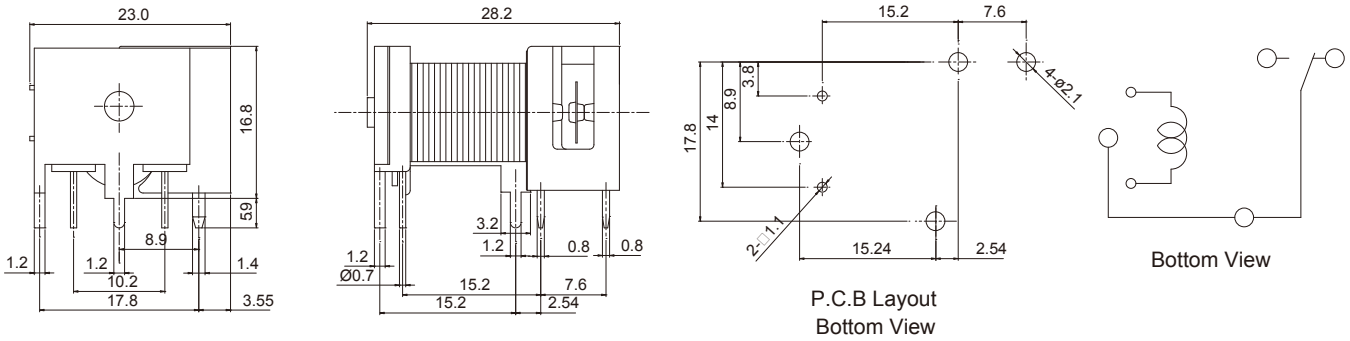
### GU-DM : 1 Common terminal : 4 PIN



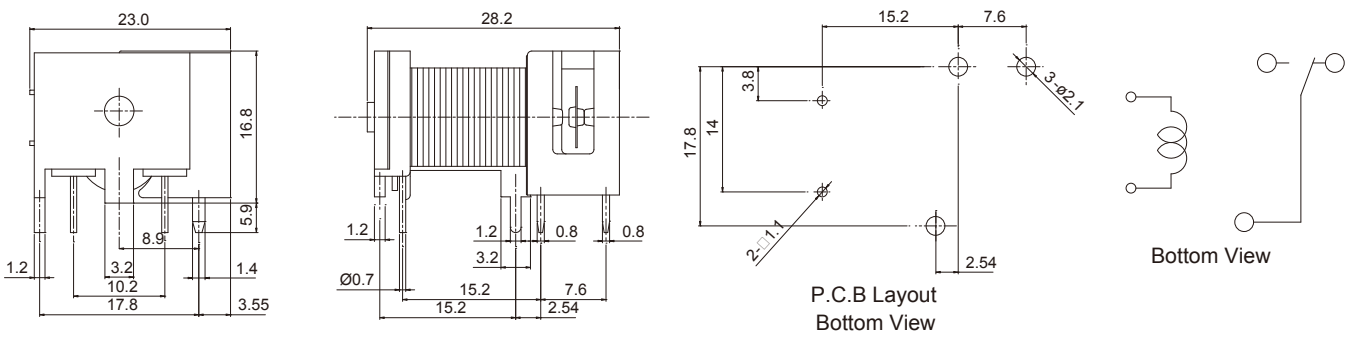
Bottom View

P.C.B Layout  
Bottom View

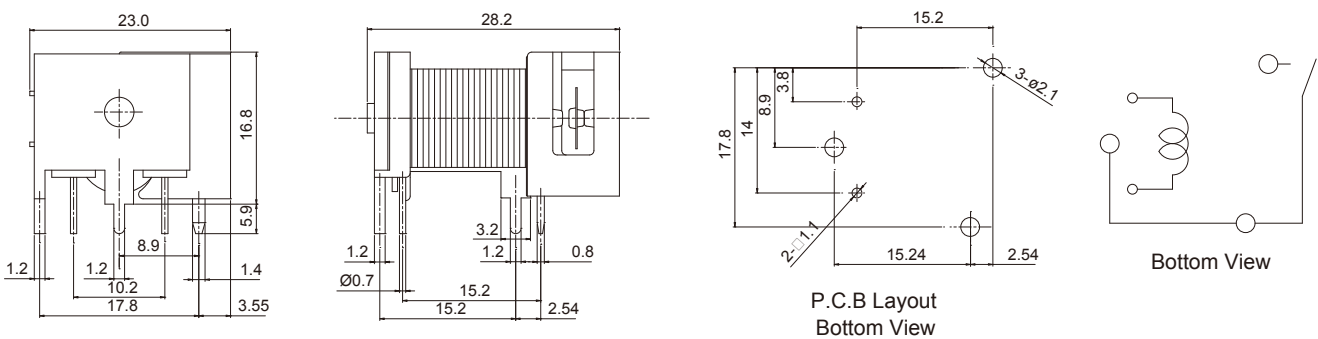
**GU-D Unclosed: 2 Common terminals : 6 PIN**



**GU-D Unclosed: 1 Common terminal : 5 PIN**



**GU-DM Unclosed: 2 Common terminals : 5 PIN**



**GU-DM Unclosed: 1 Common terminal : 4 PIN**

