

## Main Feature

1. GU Single contact Form (SPST) series Relay offers switching capacity by 30 Amps in small size for various kinds of applications.
2. Simple magnetic circuit to meet mass production for low cost offer. Standard type is open type without duct cover. In addition, dust cover and sealed cover types are available to meet customer's various requirements.
3. SS Flow Solder Type (Dust Cover) is available for PC Board processing.
4. PC Board mounting & quick connect terminals can be used for various application.
5. Flanged Cover can be fixed by screw or by snap-in mounting track.
6. Halogen Free series is available.

## Contact Rating

Load Type	GU (DM)	GU (DB)	GU (D)
Rated Load (Resistive)	30A 120VAC	10A 240VAC	NC: 10A 240VAC
	30A 240VAC	10A 30VDC	10A 30VDC
	30A 30VDC	-	NO: 20A 240VAC
	-	-	20A 30VDC
Contact Capacity	TV-8 120VAC	-	TV-8 120VAC
	1-1/2HP 240VAC	1-1/2HP 240VAC	1-1/2HP 240VAC
	1/2HP 240VAC	1/2HP 240VAC	1/2HP 240VAC
Rated Carrying Current	30A	10A	20A
Max. Allowable Voltage	AC 240V	AC 240V	AC 240V
Max. Allowable Current	30A	10A	20A
Max. Allowable Power Force	7,200VA	2,400VA	4,800VA
	900W	300W	600W
Contact Material	Ag Alloy	Ag Alloy	Ag Alloy
Contact Form	SPST	SPST	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:  
Endurance ..... 10 to 55 Hz dual amplitude width 1.5 mm.  
Error Operation..... 10 to 55 Hz dual amplitude width 1.5 mm.
- Shock:  
Endurance ..... 1,000 m/S<sup>2</sup>.  
Error Operation..... 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 Rated Resistive Load.
- Weight ..... Flow Solder Type: 27.2g  
Open Type:21.6g.

## Safety Standard & Its File Number

- UL & C-UL ..... E141060
- CQC.....07001018733

## 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% but 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

GU - SS - 1 12 D M CF

**Insulation System:**

Nil: Standard Class

CF: F Class

**Contact Form:**

Nil: One Form C

M: One Form A

B: One Form B

**Coil Type:**

D: Standard DC Coil

**Coil Voltage:**

05: 5V, 06: 6V, 09: 9V, 12: 12V, 15: 15V  
18: 18V, 24: 24V, 36: 36V, 48: 48V, 110: 110V

**Number of Pole:**

1: One Pole

**Type of Sealing:**

Nil : RT 0 Unclosed Relays

SS : RT II Flux Proofed Relays

SH : RT III Wash Tight Relays

**Type:**

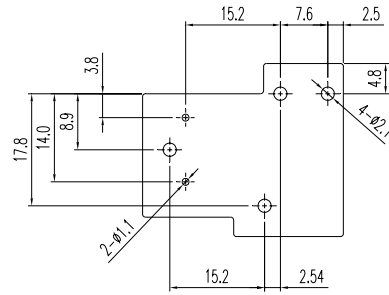
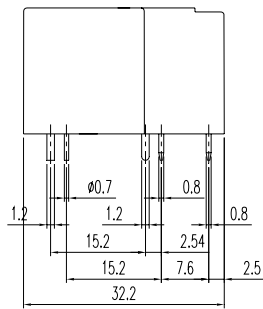
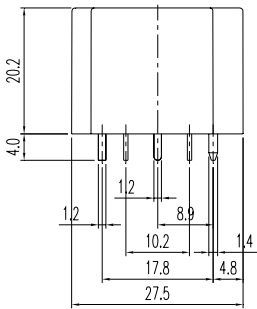
GU

## Classification

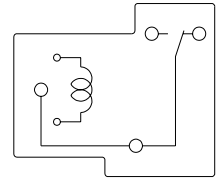
Model	GU		
Insulation System	Nil: Standard Class / CF: F Class		
Contact Form	1C	1A	1B
Unclosed Relay	GU-1□□D(CF)	GU-1□□DM(CF)	GU-1□□DB(CF)
Flux Proofed Type	GU-SS/SH-1□□D(CF)	GU-SS/SH-1□□DM(CF)	GU-SS/SH-1□□DB(CF)

Dimension ( $\leq 5\text{mm} + 0.2\text{mm}$ ,  $> 5\text{mm} + 0.3\text{mm}$ , the tolerance of PCB thru hole:  $+0.1\text{mm}$ )

## GU

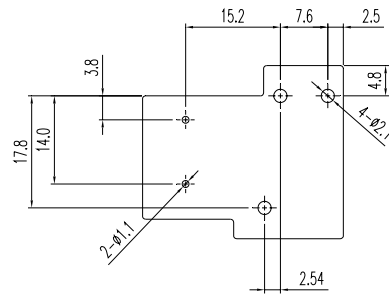
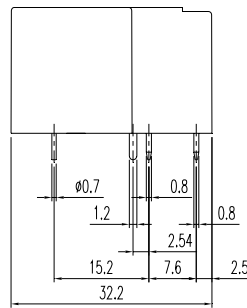
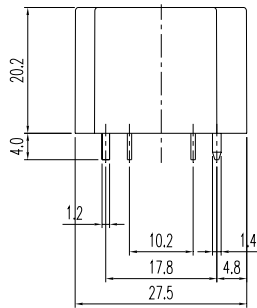


P.C.B. Layout

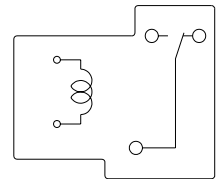


BOTTOM VIEW

## GU(Single Common)

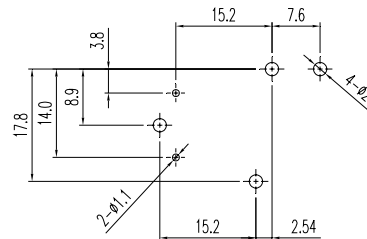
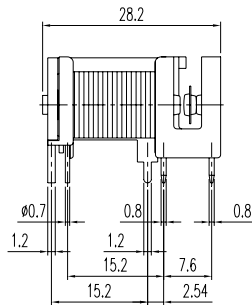
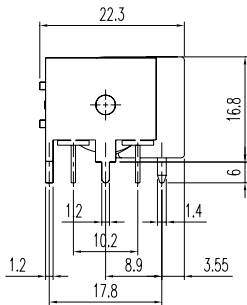


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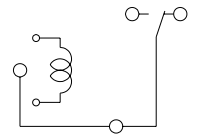


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## GU Unclosed



P.C.B. Layout



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