

(Quick Contact Tab)

MAIN FEATURE

1. GU Single contact Form (SPST) series Relay offers switching capacity by 30A in small size for various kinds of applications.
2. PC Board mounting & Quick Contact Terminals available.
3. Flanged Cover can be fixed by screw or by snap-in mounting track.
4. UL Class F insulation 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/S²
 - Malfunction 50 m/S²
- Life Expectancy:
 - Mechanical 10⁷ Operations at No Load condition
 - Electrical 10⁵ Operations at Resistive Load
- Weight About DMF : 34.0g
DMFS : 34.6g
DMQ : 32.6g

SAFETY STANDARD & FILE NUMBER

- UL & C-UL E141060
- TÜV (12/24DMQ only)..... R2057813

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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 | 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

| | | |
|------------------------------------|---------------------------|---|
| GU - SS - 1 12 D M F S CF 1 | Load rated: | Nil: NO:30A/NC:20A 1: NO:20A/NC:10A |
| | Insulation System: | Nil: Standard Class CF: Class F |
| | Case Type: | Nil: Standard S: With Flanged Case |
| | Terminal Type: | F: Both PCB Terminal & Quick Connect Tabs (Case height: 28.0mm) Q: Both PCB Terminal & Quick Contact Tabs (Case height: 21.0mm) |
| | Contact Form: | Nil: One Form C M: One Form A B: One Form B D: Standard DC |
| | Coil Type: | |
| | 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: | SS: RT II Flux Proofed GU (Quick Contact Tab) |

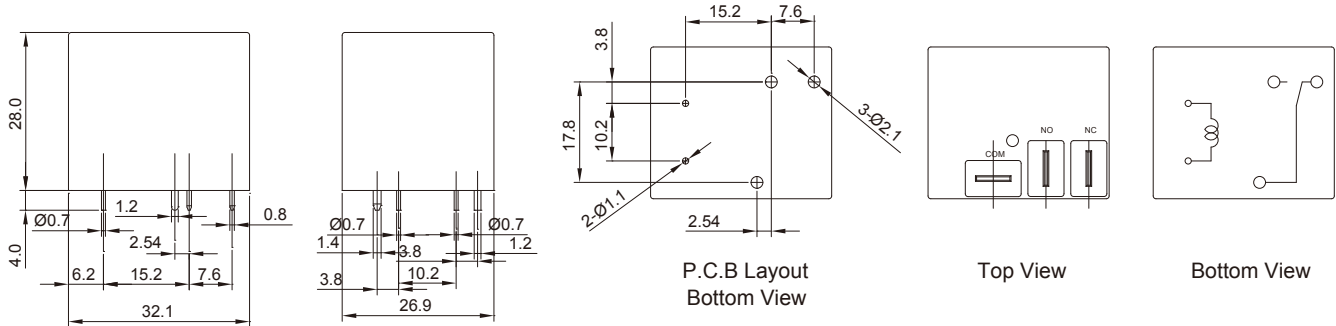
CLASSIFICATION

| Model | GU (Q-C-T) | | | | | |
|---------------|--|---------------------|---------------------|--|------------------|------------------|
| Terminal Type | F: PCB terminal & Quick Contact Tabs Case Height: 28mm | | | Q: PCB terminal & Quick Contact Tabs Case Height: 21mm | | |
| Case Type | Nil: Standard Case / S: With Flanged Case | | | Nil: Standard Case | | |
| Insulation | Nil: Standard Class / CF: Class F | | | Nil: Standard Class / CF: Class F | | |
| Contact Form | 1C | 1A | 1B | 1C | 1A | 1B |
| Flux Proofed | GU-SS-1□□DF(S)(CF)(1) | GU-SS-1□□DMF(S)(CF) | GU-SS-1□□DBF(S)(CF) | GU-SS-1□□DQ(CF)(1) | GU-SS-1□□DMQ(CF) | GU-SS-1□□DBQ(CF) |

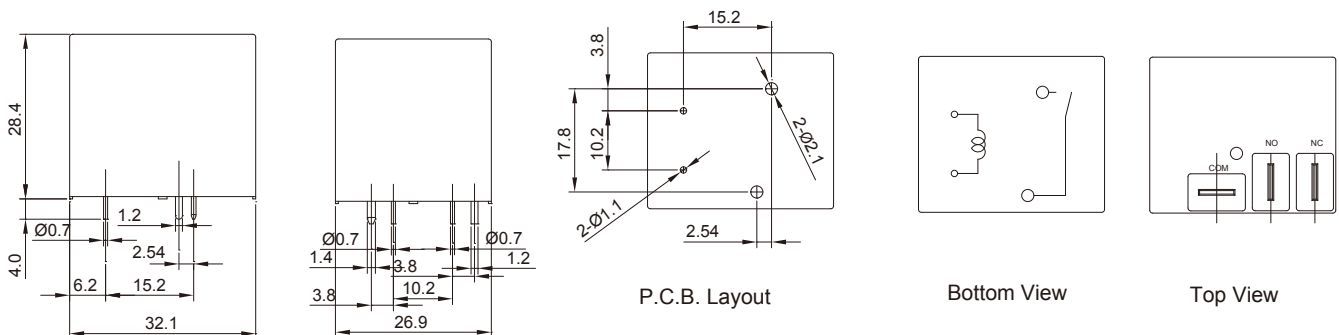
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DIMENSION (≤ 5mm ± 0.2mm, > 5mm ± 0.3mm, the tolerance of PCB thru hole: +0.1mm)

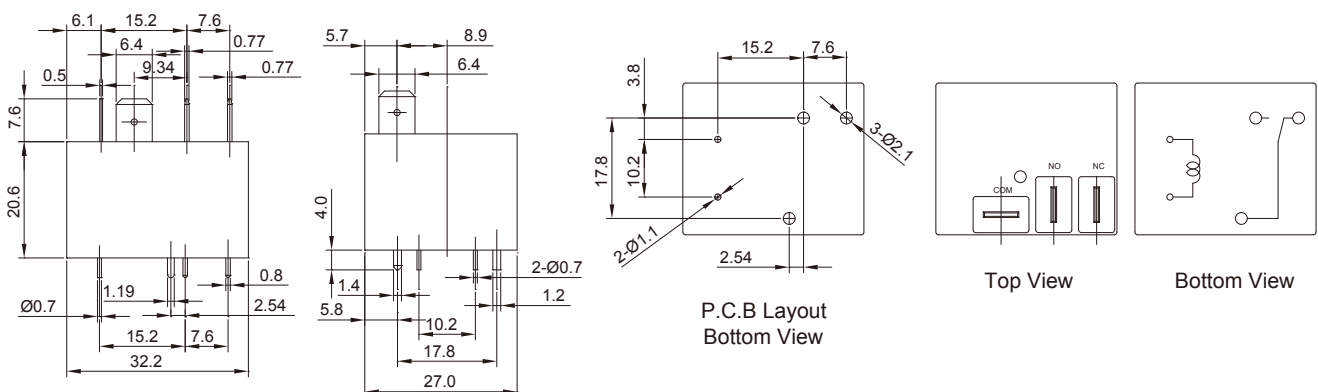
GU-DF



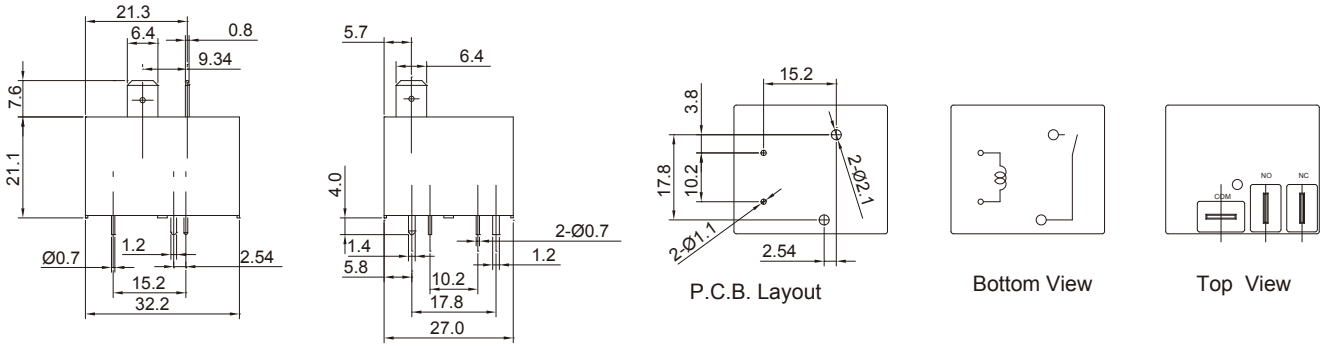
GU-DMF



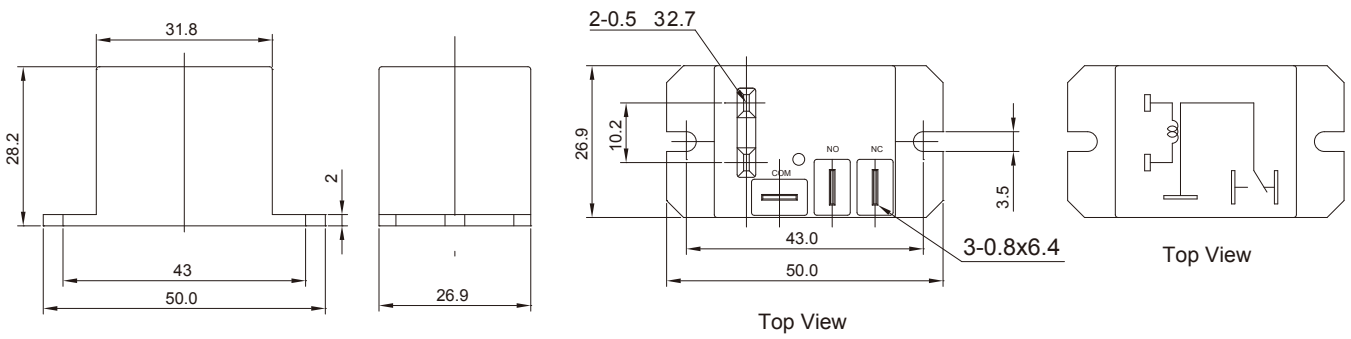
GU-DQ



GU-DMQ



GU-DFS



GU-DMFS

