

# GU (Quick Contact TAB)



## 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.

## 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	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 250V	AC 250V	AC 250V
Max. Allowable Current	30A	10A	20A
Max. Allowable Power Force	7,200VA	2,400VA	4,800VA
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..... -30~155°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 ..... 1,000m/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 ..... About DMF : 34 g.  
DMFS : 34.6g.  
DMQ : 32.6g.

## Safety Standard & Its File Number

- C -UL ..... E141060
- C -UL Class F Insulation System..E181845
- 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% but for short time carrying current
	6	150	40				
	9	93	97				
	12	77	155				
	15	59	255				
	18	47	380				
	24	36	660				
	48	19.4	2,480				
	110	8.5	13,000				

## Ordering Information

GU - SS - 1 12 D M F S	Case Type:	Nil: Standard S: With Flanged Case
	Terminal Type:	F: Both PCB Terminal & Quick Contact Tabs (Case height: 28.0mm) Q: Both PCB Terminal & Quick Connect Tabs (Case height: 21.0mm) J: Quick Connect Tabs (Case height: 21.0mm)
	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, 48: 48V, 110: 110V
	Number of Pole:	1: One Pole
	Type of Sealing:	S: Hand Soldered Type SS: Flow Soldered Type
	Type:	GU(Quick Contact TAB)

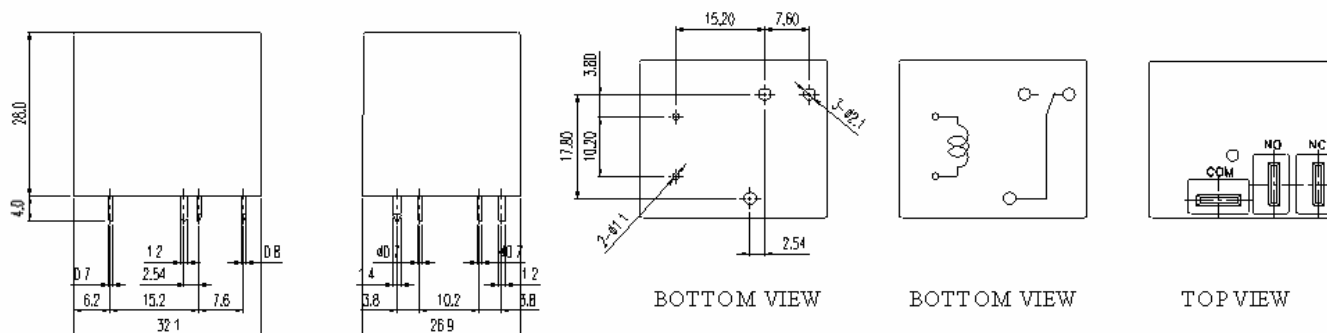
## Classification

Model	GU (Q-C-T)					
Terminal Type	F : PCB terminal & Quick Connect Tabs Case Height:28mm			Q : PCB terminal & Quick Connect Tabs Case Height:21mm		
Case Type	Nil : Standard Case		S : (With Flanged Case)		Nil : Standard Case	
Contact Form	1C	1A	1B	1C	1A	1B
Hand Soldered	GU-S-1□□DF(S)	GU-S-1□□DMF(S)	GU-S-1□□DBF(S)	GU-S-1□□DQ	GU-S-1□□DMQ	GU-S-1□□DBQ
Flow Soldered	GU-SS-1□□DF(S)	GU-SS-1□□DMF(S)	GU-SS-1□□DBF(S)	GU-SS-1□□DQ	GU-SS-1□□DMQ	GU-SS-1□□DBQ

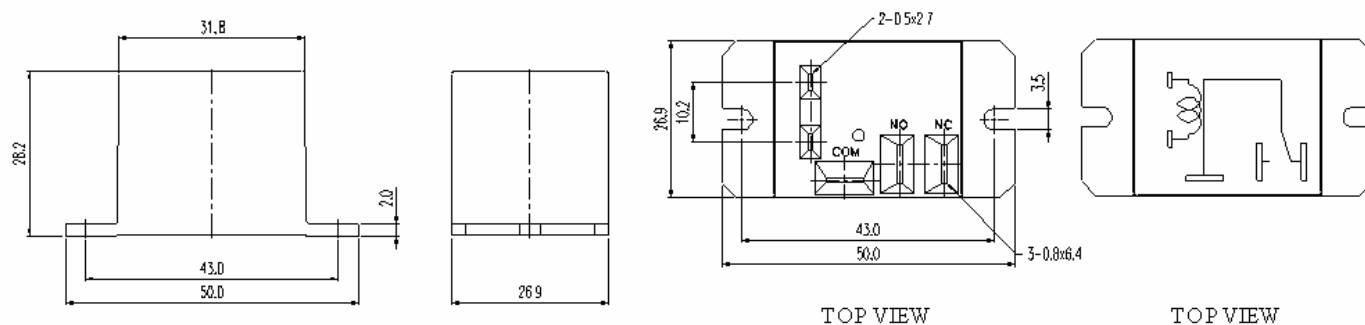
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Dimension ( $\leq 5\text{mm} \pm 0.2\text{mm}$ ,  $> 5\text{mm} \pm 0.3\text{mm}$ , the tolerance of PCB thru hole:  $+0.1\text{mm}$ )

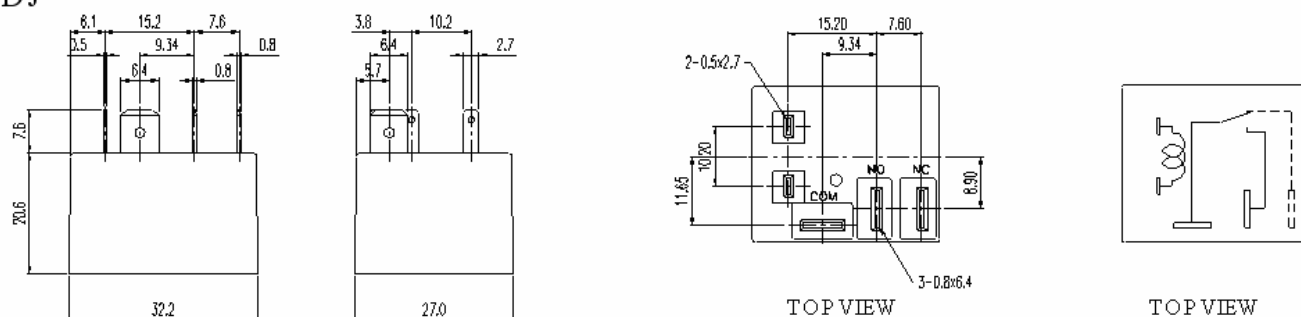
## GU-DF



## GU-DFS



## GU-DJ



## GU-DQ

