


FL-21FF

PC Board Relay

 E173485

20.3×16.8×20.3



- 12A switching capability
- SPST-NO configuration
- Small footprint
- Sealed version available
- Class B/F available
- Conform to RoHS,ELV directive

CONTACT DATA

| | |
|-----------------------|---|
| Contact Form | 1H/1Z |
| Contact Material | Silver Alloy |
| Load | Resistive load(COS Φ=1) |
| Contact Ratings | 1H:12A 240VAC 15A 120VAC 1Z: 10A 240VAC 12A 120VAC |
| Minimum load | 10mA 5VDC |
| Max Switching Voltage | 250VAC/30VDC |
| Max Switching Current | 15A |
| Max Switching Power | 2770VA/240W |
| Contact Resistance | 100mΩ Max at 6VDC 1A |
| Electrical | 100,000 Operations(at30Operations/minute) |
| Mechanical | 10,000,000 Operations(at300Operations/minute) |

CHARACTERISTICS DATA

| | |
|---------------------------|---|
| Insulation Resistance | 100MΩ Min at 500VDC |
| Between Open Contacts | 750VAC(for one minute) |
| Between Contacts and Coil | 1500VAC(for one minute) |
| Operate Time | 10ms |
| Release Time | 5ms |
| Temperature Range | -40°C to +70°C (Class F: 85°C) |
| Shock Resistance | Operating Extremes: 10G |
| | Damage Limits: 100G |
| Vibration Resistance | 10-55Hz, 1.5mm |
| Max. switching frequency | Mechanical: 18,000operations/hr Electrical: 1,800operations/hr |
| Humidity | 40-85% |
| Weight | Approx 13g |

APPROVED STANDARDS

| | |
|----------|---------------------------------------|
| UL & cUL | 1H:12A 240VAC 15A 120VAC TV-5 120VAC |
| | 1Z: 10A 240VAC 12A 120VAC TV-5 120VAC |

COIL DATA

at 20°C

Coil Power 0.36W

| Nominal Voltage (VDC) | Rated Current (mA) | Max Operate Voltage (VDC) | Min Release Voltage (VDC) | Coil Resistance (Ω ±10%) |
|-----------------------|--------------------|---------------------------|---------------------------|--------------------------|
| 3 | 120 | 2.25 | 0.15 | 25 |
| 5 | 71.4 | 3.75 | 0.25 | 69 |
| 6 | 60 | 4.5 | 0.3 | 100 |
| 9 | 40 | 6.75 | 0.45 | 225 |
| 12 | 30 | 9 | 0.6 | 400 |
| 24 | 15 | 18 | 1.2 | 1600 |
| 48 | 7.5 | 36 | 2.4 | 6400 |

Coil Power 0.45W

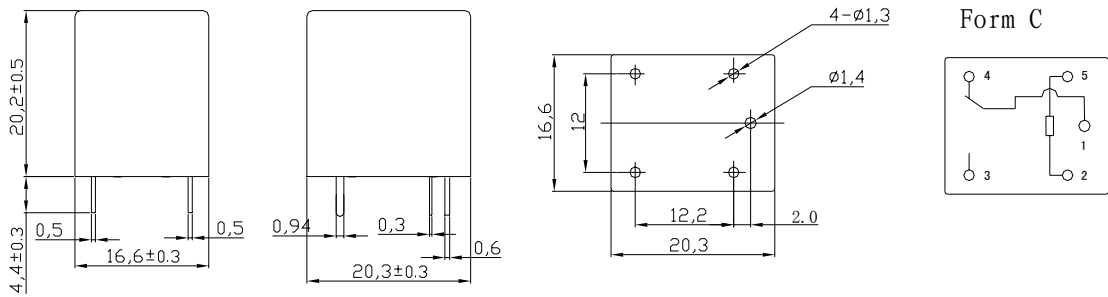
| Nominal Voltage (VDC) | Rated Current (mA) | Max Operate Voltage (VDC) | Min Release Voltage (VDC) | Coil Resistance (Ω ±10%) |
|-----------------------|--------------------|---------------------------|---------------------------|--------------------------|
| 3 | 150 | 2.25 | 0.15 | 20 |
| 5 | 89.2 | 3.75 | 0.25 | 56 |
| 6 | 75 | 4.5 | 0.3 | 80 |
| 9 | 50 | 6.75 | 0.45 | 180 |
| 12 | 37.5 | 9 | 0.6 | 320 |
| 24 | 18.7 | 18 | 1.2 | 1280 |
| 48 | 9 | 36 | 2.4 | 5100 |

ORDERING CODE

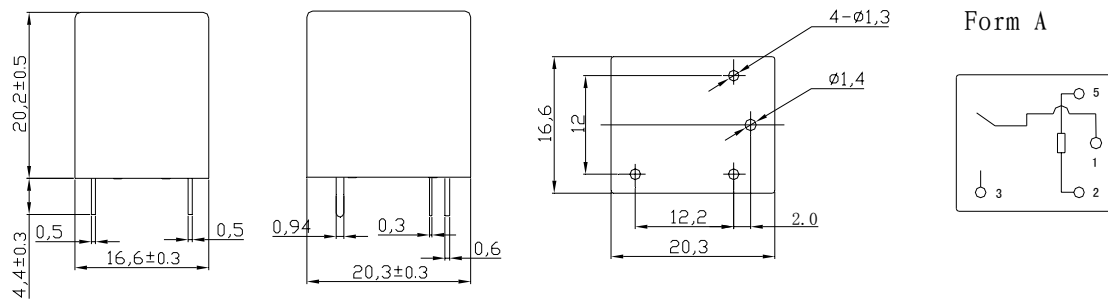
| | | | | |
|---|---|---|---|---|
| FL-21FF—S—H (TBF-1) /12VDC | | | | |
| 1 | 2 | 3 | 4 | 5 |
| 1. Relay Model 2. Sealed 3. Contact Form H: Form A Z: Form C 4. Insulated Level TBF-1: Class F Nil: Standard 5. Coil Nominal Voltage 3,5,6,9,12,24,48VDC | | | | |



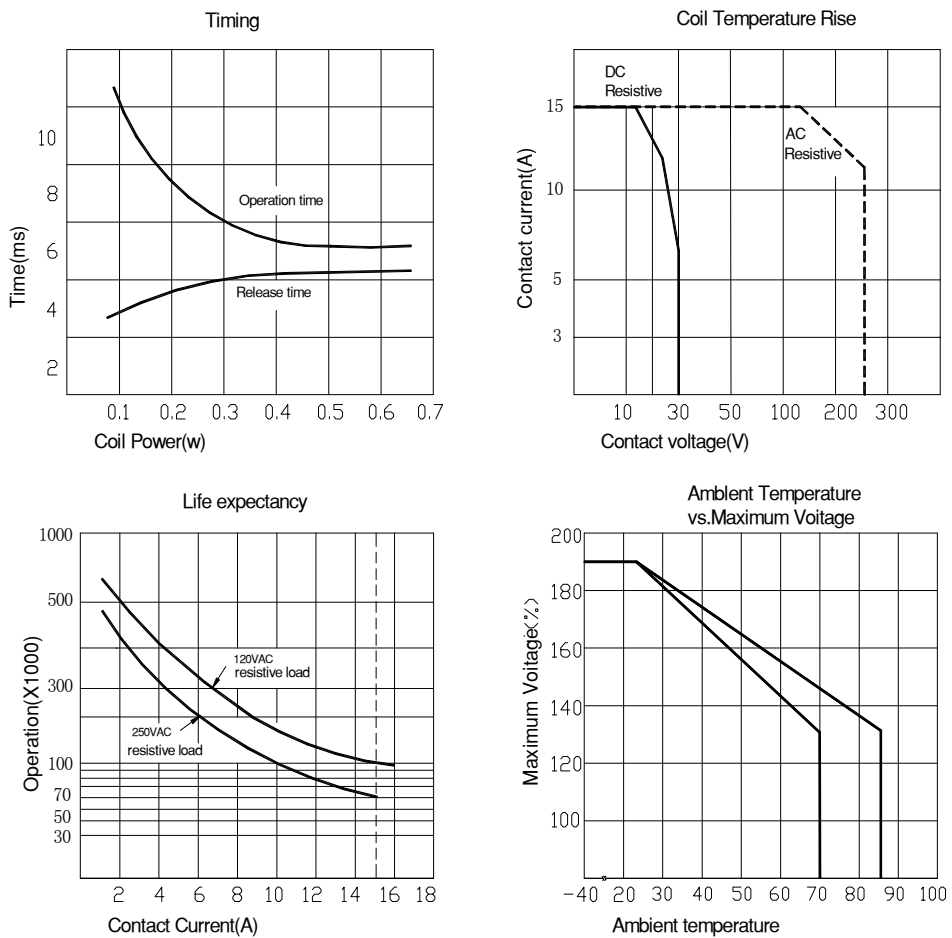
OUTLINE DIMENSIONS, WIRING DIAGRAM AND LAYOUT



Layout (Bottom View)



ENGINEERING DATA



FLOURISHING RELAY

The specifications are for the customer's reference and are subject to change without notice.