

MT2 Relay

- Telecom/signal relay (dry circuit, test access, ringing)
- Slim line 20x10mm (.795x.393")
- Switching current 2A
- 2 form C contacts (2 CO, 2 changeover contacts)
- Bifurcated contacts
- Meets FCC Part 68 and ITU-T K20

Typical applications

Communications equipment, linecard application – analog, ISDN, xDSL, PABX, voice over IP, office and business equipment, measurement and control equipment, consumer electronics, set top boxes, HiFi, medical equipment, automotive Equipment



Approvals

UL 508 File No. E 111441
 Technical data of approved types on request

Contact Data

| | |
|---|-------------------------------------|
| Contact arrangement | 2 form C (2 CO) |
| Max. switching voltage | 220VDC, 250VAC |
| Rated current | 2A |
| Limiting continuous current, 85°C | 2A |
| Contact material | AgNi, gold-covered |
| Contact style | bifurcated contacts |
| Min. recommended contact load | 10mA at 20mV |
| Minimum switching voltage | 100µV |
| Initial contact resistance | < 70mΩ at 10mA, 20mV |
| Frequency of operation, without load max. | 50 operations/s |
| Operate / release time max. | 5ms/3ms |
| Bounce time max. | 5ms |
| Electrical endurance | |
| contact application 0 (≤30mV/≤10mA) | min. 5x10 ⁶ operations |
| cable load open end | min. 2.5x10 ⁶ operations |
| resistive load 150V/0.2A - 30W | min. 2x10 ⁵ operations |
| 24V/1.25A - 30W | min. 2x10 ⁵ operations |
| Contact ratings, UL | |
| 220VDC/0.24A - 60W | |
| 125VDC/0.24A - 30W | |
| 250VAC/0.25A - 62.5VA | |
| 125VAC/0.5A - 62.5VA | |
| 30VDC/2A - 60W | |
| Mechanical endurance | typ. 100x10 ⁶ operations |

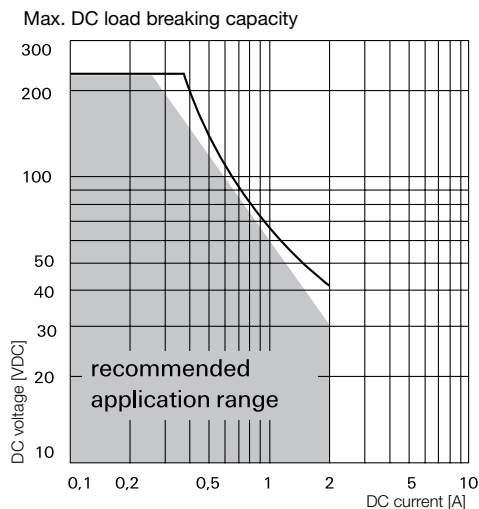
Coil Data

| | |
|-----------------------|------------|
| Magnetic system | neutral |
| Coil voltage range | 3 to 48VDC |
| Max. coil temperature | 115°C |
| Thermal resistance | < 85K/W |

Coil versions, monostable

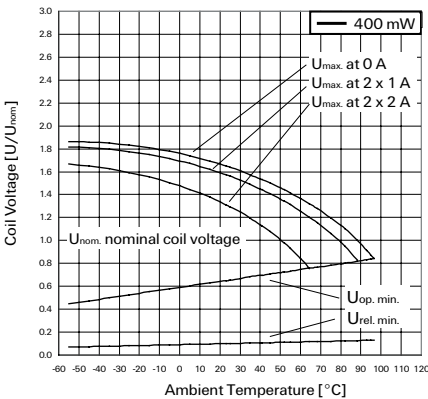
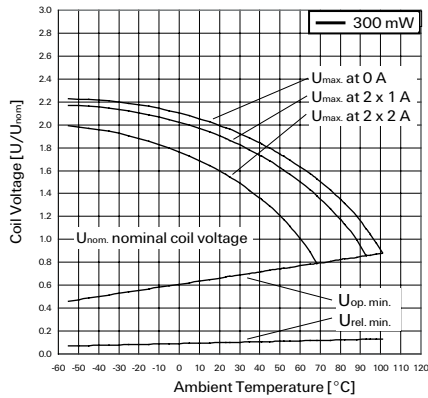
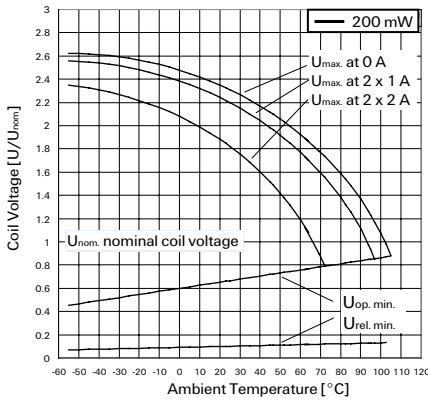
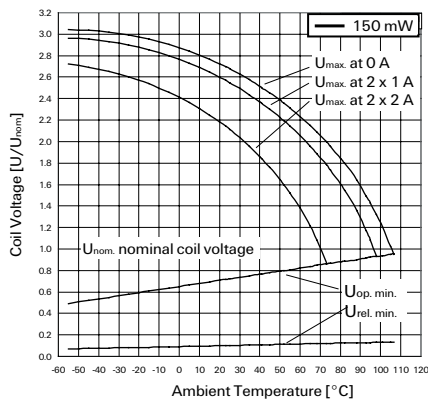
| Coil code | Rated voltage VDC | Operate voltage VDC | Limiting Voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|--------------------------------------|-------------------|---------------------|----------------------|---------------------|-----------------------|---------------------|
| High sensitive version, 150mW | | | | | | |
| 00 | 3 | 2.1 | 8.1 | 0.3 | 60 | 150 |
| 07 | 3.3 | 2.3 | 8.8 | 0.33 | 72 | 150 |
| 06 | 4.5 | 3.2 | 12.2 | 0.45 | 136 | 150 |
| 01 | 5 | 3.6 | 13.5 | 0.5 | 168 | 150 |
| 27 | 6 | 4.3 | 16.2 | 0.6 | 240 | 150 |
| 05 | 9 | 6.4 | 24.3 | 0.9 | 544 | 150 |
| 02 | 12 | 8.6 | 32.4 | 1.2 | 968 | 150 |
| 03 | 24 | 17.1 | 64.8 | 2.4 | 3872 | 150 |
| 04 | 48 | 34.1 | 129.6 | 4.8 | 15468 | 150 |
| Sensitive version, 200mW | | | | | | |
| 14 | 3 | 2 | 7 | 0.3 | 45 | 200 |
| 15 | 4.5 | 2.9 | 10.5 | 0.45 | 101 | 200 |
| 16 | 5 | 3.3 | 11.6 | 0.5 | 125 | 200 |
| 28 | 6 | 3.9 | 14 | 0.6 | 180 | 200 |
| 17 | 9 | 5.9 | 21 | 0.9 | 405 | 200 |
| 18 | 12 | 7.8 | 28 | 1.2 | 720 | 200 |
| 19 | 24 | 15.6 | 59.9 | 2.4 | 2880 | 200 |
| 20 | 48 | 31.2 | 112 | 4.8 | 11520 | 200 |
| Sensitive version, 300mW | | | | | | |
| 33 | 4.5 | 3.1 | 8.9 | 0.45 | 73 | 300 |
| 34 | 5 | 3.4 | 9.9 | 0.5 | 90 | 300 |
| 12 | 12 | 8.25 | 23.6 | 1.2 | 515 | 300 |
| 35 | 24 | 16.5 | 47.3 | 2.4 | 2060 | 300 |
| 36 | 48 | 32.5 | 54.6 | 4.8 | 8240 | 300 |
| Standard version, 400mW | | | | | | |
| 21 | 4.5 | 2.9 | 8.9 | 0.45 | 50 | 400 |
| 22 | 5 | 3.3 | 9.9 | 0.5 | 63 | 400 |
| 29 | 6 | 3.9 | 11.8 | 0.6 | 90 | 400 |
| 23 | 9 | 5.9 | 17.7 | 0.9 | 203 | 400 |
| 24 | 12 | 7.8 | 23.6 | 1.2 | 360 | 400 |
| 25 | 24 | 15.6 | 47.3 | 2.4 | 1440 | 400 |
| 26 | 48 | 31.2 | 94.6 | 4.8 | 5760 | 400 |
| Standard version, 550mW | | | | | | |
| 38 | 4.5 | 2.9 | 6.3 | 0.45 | 36 | 550 |
| 50 | 5 | 3.3 | 7 | 0.5 | 45 | 550 |
| 37 | 6 | 3.9 | 8.4 | 0.6 | 66 | 550 |
| 32 | 12 | 7.8 | 16.8 | 1.2 | 280 | 550 |
| 31 | 24 | 15.6 | 33.6 | 2.4 | 1050 | 550 |
| 30 | 48 | 31.2 | 67.2 | 4.8 | 4100 | 550 |

All figures are given for coil without pre-energization, at ambient temperature +23°C.
 Other coil voltages on request.

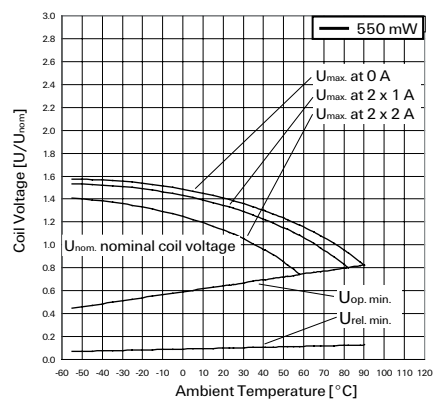


MT2 Relay (Continued)

Coil Data (continued)



Coil Data (continued)



Coil operative range graphs

- U_{nom} Nominal coil voltage
- U_{max} Upper limit of the operative range of the coil voltage (limiting voltage) when coils are continuously energized
- $U_{op. min.}$ Lower limit of the operative range of the coil voltage (reliable operate voltage)
- $U_{rel. min.}$ Lower limit of the operative range of the coil voltage (reliable release voltage)

Insulation Data

| | |
|---|----------------------|
| Initial dielectric strength | |
| between open contacts | 750V _{rms} |
| between contact and coil | 1050V _{rms} |
| between adjacent contacts | 750V _{rms} |
| Initial surge withstand voltage | |
| between open contacts | 1500V |
| between contact and coil | 1500V |
| between adjacent contacts | 1500V |
| Initial insulation resistance at 500VDC | > 10 ⁹ Ω |
| between insulated elements | |
| Capacitance | |
| between open contacts | max. 2pF |
| between contact and coil | max. 4pF |
| between adjacent contacts | max. 2pF |

Other Data

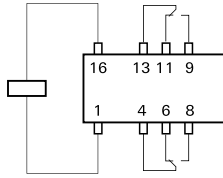
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at www.tycoelectronics.com/customer-support/rohssupportcenter

| | |
|--------------------------------------|------------------------------|
| Ambient temperature | -55 to +85°C |
| Category of environmental protection | IEC 61810 |
| Degree of protection, IEC 60529 | RT III - immersion cleanable |
| Vibration resistance (functional) | IP 67 |
| Shock resistance (functional) | 10g, 10 to 500Hz |
| Shock resistance (functional) | IEC 60068-2-27 (half sine) |
| Shock resistance (destructive) | 10g/30g |
| Terminal type | 500g |
| Weight | PCB-THT |
| Resistance to soldering heat THT | max. 5g |
| IEC 60068-2-20 | 265 °C / 10 s |
| Ultrasonic cleaning | not recommended |
| Packaging unit | 1000 pcs. |

MT2 Relay (Continued)

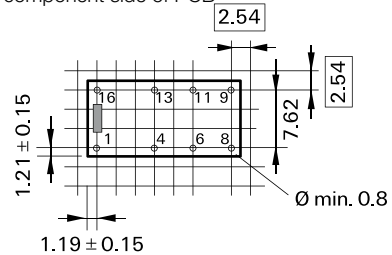
Terminal assignment

TOP view on component side of PCB



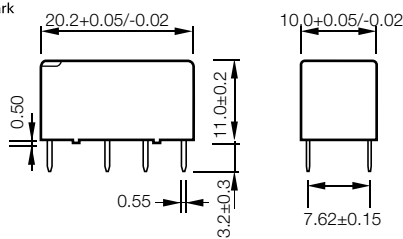
PCB layout

TOP view on component side of PCB

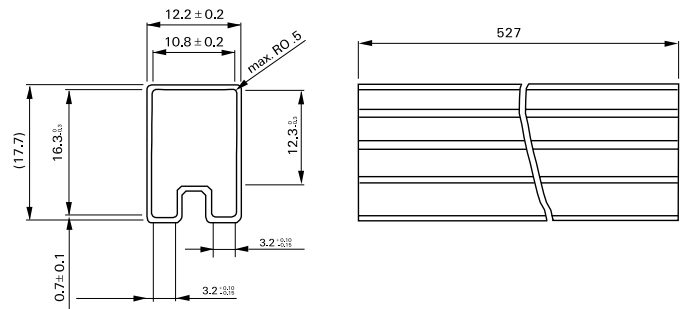


Dimensions

Orientation mark



Packing



Product code structure

Typical product code **C934 22**

Type
C934 MT2 Series Signal Relay
 2 form C, 2 CO, AgNi +Au contacts

Coil
 Coil code: please refer to coil versions table

MT2 Relay (Continued)

| Product Code | Version | Coil | Coil power | Coil voltage | Part number | | |
|--------------|---------------------------------------|-------------------|------------|--------------|-------------|-------------|-------------|
| C93400 | 2 form C (2CO) AgNi+Au contacts | High sensitive | 150mW | 3VDC | 1-1462001-2 | | |
| C93407 | | | | 3.3VDC | 1-1462001-3 | | |
| C93406 | | | | 4.5VDC | 2-1462000-2 | | |
| C93401 | | | | 5VDC | 1462000-1 | | |
| C93427 | | | | 6VDC | 5-1462000-6 | | |
| C93405 | | | | 9VDC | 2-1462000-0 | | |
| C93402 | | | | 12VDC | 1462000-7 | | |
| C93403 | | | | 24VDC | 1-1462000-3 | | |
| C93404 | | | | 48VDC | 1-1462000-8 | | |
| C93414 | | | | Sensitive | 200mW | 3VDC | 1-1462001-1 |
| C93415 | | | | | | 4.5VDC | 3-1462000-0 |
| C93416 | | | | | | 5VDC | 3-1462000-1 |
| C93428 | | | | | | 6VDC | 5-1462000-7 |
| C93417 | | | | | | 9VDC | 3-1462000-6 |
| C93418 | 12VDC | 3-1462000-7 | | | | | |
| C93419 | 24VDC | 4-1462000-1 | | | | | |
| C93420 | 48VDC | 4-1462000-5 | | | | | |
| C93433 | Sensitive | 300mW | 4.5VDC | | | 6-1462000-6 | |
| C93434 | | | 5VDC | | | 6-1462000-8 | |
| C93412 | | | 12VDC | 2-1462000-6 | | | |
| C93435 | | | 24VDC | 7-1462000-0 | | | |
| C93436 | | | 48VDC | 7-1462000-2 | | | |
| C93421 | | | Standard | 400mW | 4.5VDC | 4-1462000-7 | |
| C93422 | 5VDC | 4-1462000-8 | | | | | |
| C93429 | 6VDC | 5-1462000-8 | | | | | |
| C93423 | 9VDC | 5-1462000-0 | | | | | |
| C93424 | 12VDC | 5-1462000-1 | | | | | |
| C93425 | 24VDC | 5-1462000-3 | | | | | |
| C93426 | 48VDC | 5-1462000-5 | | | | | |
| C93438 | Standard | 550mW | | | 4.5VDC | 7-1462000-7 | |
| C93450 | | | | | 5VDC | 8-1462000-5 | |
| C93437 | | | | | 6VDC | 7-1462000-6 | |
| C93432 | | | 12VDC | 6-1462000-2 | | | |
| C93431 | | | 24VDC | 6-1462000-1 | | | |
| C93430 | | | 48VDC | 5-1462000-9 | | | |