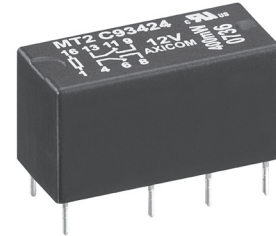


**MT2 Relay**

- 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**

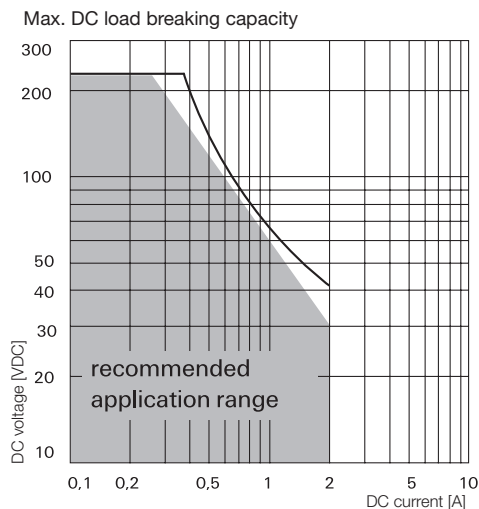
Communications equipment, linecard application – analog, ISDN, xDSL, PABX, voice over IP, office and business equipment, measurement and control equipment, consumer electronics, set top boxes, HiFi, medical equipment, automotive Equipment

**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 <sup>6</sup> operations   |
| cable load open end                       | min. 2.5x10 <sup>6</sup> operations   |
| resistive load 150V/0.2A - 30W            | min. 2x10 <sup>5</sup> operations   |
| 24V/1.25A - 30W                           | min. 2x10 <sup>5</sup> operations   |
| Contact ratings, UL                       | 220VDC/0.24A - 60W<br>125VDC/0.24A - 30W<br>250VAC/0.25A - 62.5VA<br>125VAC/0.5A - 62.5VA<br>30VDC/2A - 60W |
| Mechanical endurance                      | typ. 100x10 <sup>6</sup> operations   |



**Coil Data**

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

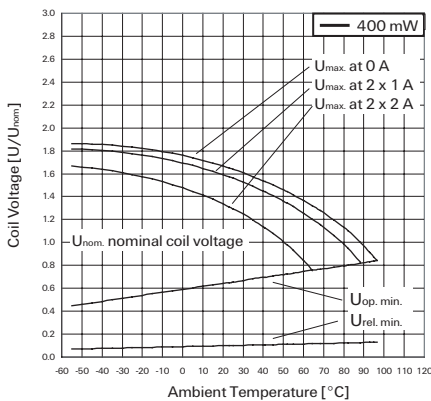
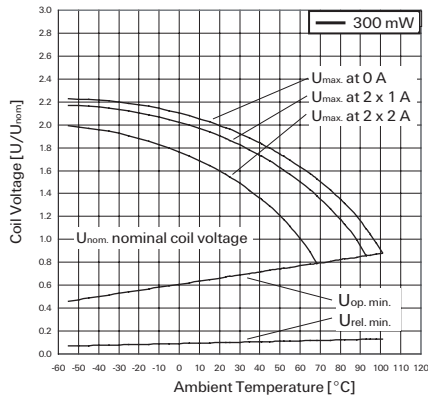
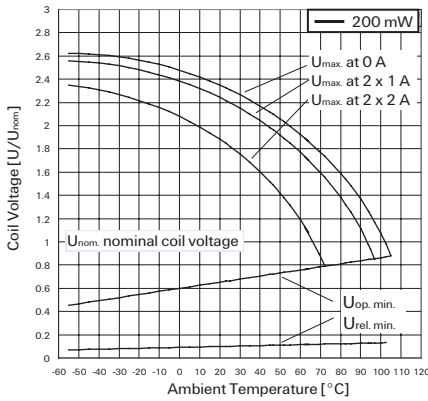
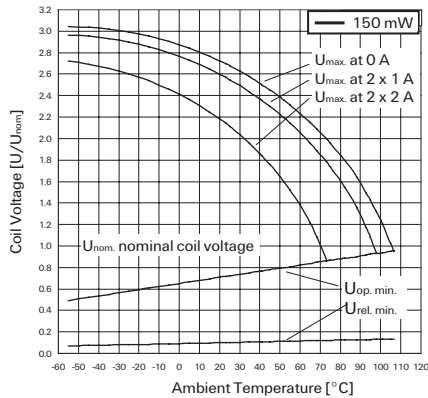
**Coil versions, monostable**

| Coil code                            | Rated voltage VDC | Operate voltage VDC <sub>min.</sub> | Limiting Voltage VDC <sub>max.</sub> | Release voltage VDC <sub>min.</sub> | Coil resistance Ω±10% | Rated coil power mW |
|--------------------------------------|-------------------|-------------------------------------|--------------------------------------|-------------------------------------|-----------------------|---------------------|
| <b>High sensitive version, 150mW</b> |                   |                                     |                                      |                                     |                       |                     |
| 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                 |
| <b>Sensitive version, 200mW</b>      |                   |                                     |                                      |                                     |                       |                     |
| 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                 |
| <b>Sensitive version, 300mW</b>      |                   |                                     |                                      |                                     |                       |                     |
| 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                 |
| <b>Standard version, 400mW</b>       |                   |                                     |                                      |                                     |                       |                     |
| 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                 |
| <b>Standard version, 550mW</b>       |                   |                                     |                                      |                                     |                       |                     |
| 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                 |

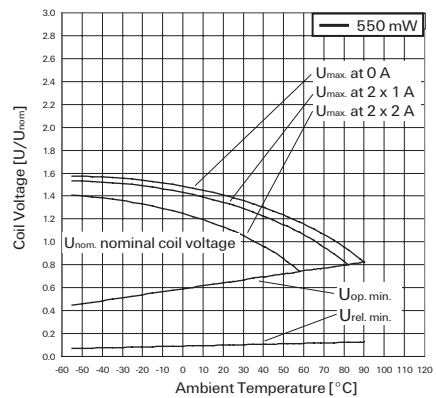
All figures are given for coil without pre-energization, at ambient temperature +23°C.  
Other coil voltages on request.

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 <sub>rms</sub>  |
| between contact and coil                | 1050V <sub>rms</sub> |
| between adjacent contacts               | 750V <sub>rms</sub>  |
| Initial surge withstand voltage         |                      |
| between open contacts                   | 1500V                |
| between contact and coil                | 1500V                |
| between adjacent contacts               | 1500V                |
| Initial insulation resistance at 500VDC | > 10 <sup>9</sup> Ω  |
| Capacitance                             |                      |
| between open contacts                   | max. 2pF             |
| between contact and coil                | max. 4pF             |
| between adjacent contacts               | max. 2 pF            |

RF Data

|   |                 |
|---|-----------------|
| Isolation at 100MHz/900MHz                          | -31.8dB/-14.2dB |
| Insertion loss at 100MHz/900MHz                     | -0.02dB/-0.97dB |
| Voltage standing wave ratio (VSWR) at 100MHz/900MHz | 1.03/1.31       |

Other Data

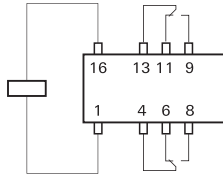
Material compliance: EU RoHS/ELV, China RoHS, REACH, Halogen content refer to the Product Compliance Support Center at [www.te.com/customer-support/rohssupportcenter](http://www.te.com/customer-support/rohssupportcenter)

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

**MT2 Relay (Continued)**

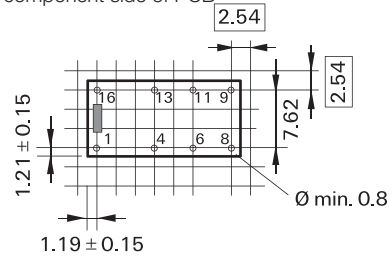
**Terminal assignment**

TOP view on component side of PCB

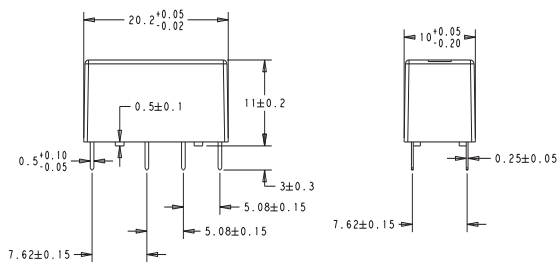


**PCB layout**

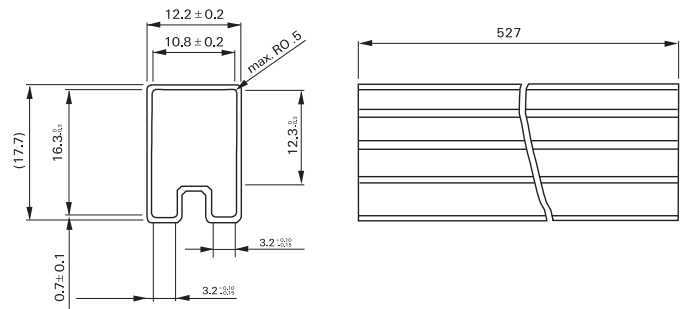
TOP view on component side of PCB



**Dimensions**



**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)<br>AgNi+Au<br>contacts | High<br>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        |
| 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       |            |              |             |             |
| 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  |             |             |