

## Miniature PCB Relay SDT-R

- 10A contact rating
- UL TV-5 and TV-8 rating
- 1 form A (NO) contact arrangement
- Sensitive and standard coils available

## Typical applications

Appliances, HVAC, cable TV, monitor display



## Approvals

UL E58304, TUV R50138781, VDE 40019832, CQC03001002917

Technical data of approved types on request

## Contact Data

|                               |   |
|-------------------------------|---|
| Contact arrangement           | 1 Form A (NO)   |
| Rated voltage                 | 250VAC, 30VDC   |
| Max. switching voltage        | 250VAC, 30VDC   |
| Rated current                 | 5 to 10A  |
| Contact material              | AgSnO <sub>2</sub>  |
| Min. recommended contact load | 100mA at 5VDC   |
| Frequency of operation        | 360 ops./h  |
| Operate/release time max.     | 15/5ms  |
| Electrical endurance          | SDT-LMR(2): 5A, 250VAC res, 70°C 100x10 <sup>3</sup> ops.<br>TV-5, 120VAC 25x10 <sup>3</sup> ops.<br>SDT-DMR(2): 10A, 250VAC res, , 70°C 100x10 <sup>3</sup> ops.<br>TV-8, 120VAC 25x10 <sup>3</sup> ops. |
| Contact ratings               | 5 to 10A  |
| Mechanical endurance, DC coil | 10x10 <sup>6</sup> operations   |

## Coil Data

|                                     |            |
|-------------------------------------|------------|
| Coil voltage range                  | 3 to 48VDC |
| Operative range, IEC 61810          | 1          |
| Coil insulation system according UL | Class E    |

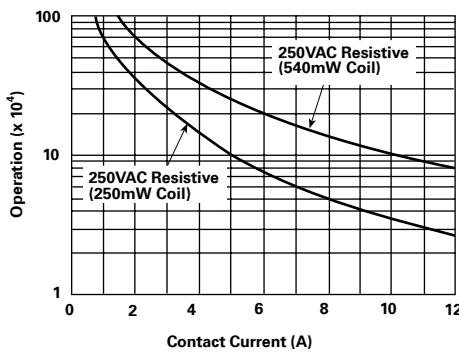
## Contact Data (continued)

## Coil versions, DC coil

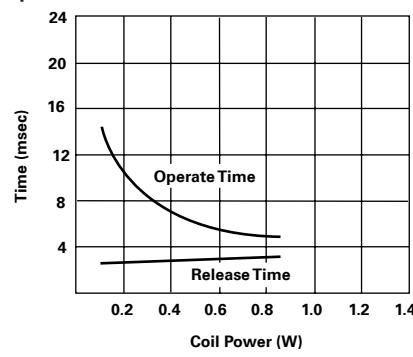
| Coil code                     | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|-------------------------------|-------------------|---------------------|---------------------|-----------------------|---------------------|
| <b>SDT-LMR &amp; SDT-DMR2</b> |                   |                     |                     |                       |                     |
| 003                           | 3                 | 2.25                | 0.3                 | 36                    | 250                 |
| 005                           | 5                 | 3.75                | 0.5                 | 100                   | 250                 |
| 006                           | 6                 | 4.50                | 0.6                 | 144                   | 250                 |
| 009                           | 9                 | 6.75                | 0.9                 | 324                   | 250                 |
| 012                           | 12                | 9.00                | 1.2                 | 576                   | 250                 |
| 018                           | 18                | 13.50               | 1.8                 | 1296                  | 250                 |
| 024                           | 24                | 18.00               | 2.4                 | 2304                  | 250                 |
| <b>SDT-DMR</b>                |                   |                     |                     |                       |                     |
| 003                           | 3                 | 2.25                | 0.3                 | 16.7                  | 540                 |
| 005                           | 5                 | 3.75                | 0.5                 | 46.3                  | 540                 |
| 006                           | 6                 | 4.50                | 0.6                 | 66.7                  | 540                 |
| 009                           | 9                 | 6.75                | 0.9                 | 150                   | 540                 |
| 012                           | 12                | 9.00                | 1.2                 | 267                   | 540                 |
| 018                           | 18                | 13.50               | 1.8                 | 600                   | 540                 |
| 024                           | 24                | 18.00               | 2.4                 | 1067                  | 540                 |
| 048                           | 48                | 36.00               | 4.8                 | 4267                  | 540                 |
| <b>SDT-LMR2</b>               |                   |                     |                     |                       |                     |
| 003                           | 3                 | 2.25                | 0.3                 | 60                    | 150                 |
| 005                           | 5                 | 3.75                | 0.5                 | 167                   | 150                 |
| 006                           | 6                 | 4.50                | 0.6                 | 240                   | 150                 |
| 009                           | 9                 | 6.75                | 0.9                 | 540                   | 150                 |
| 012                           | 12                | 9.00                | 1.2                 | 960                   | 150                 |
| 018                           | 18                | 13.50               | 1.8                 | 2160                  | 150                 |
| 024                           | 24                | 18.00               | 2.4                 | 3840                  | 150                 |

All figures are given for coil without pre-energization, at ambient temperature +23°C

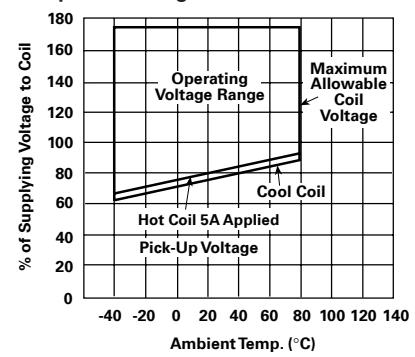
## Electrical endurance



## Operate time



## Coil operative range



## Miniature PCB Relay SDT-R (Continued)

**Insulation Data**

|  |                      |
|--|----------------------|
| Initial dielectric strength<br>between open contacts | 1000V <sub>rms</sub> |
| between contact and coil                             | 4000V <sub>rms</sub> |
| Clearance/creepage<br>between contact and coil       | >1.6/3.2mm           |

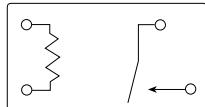
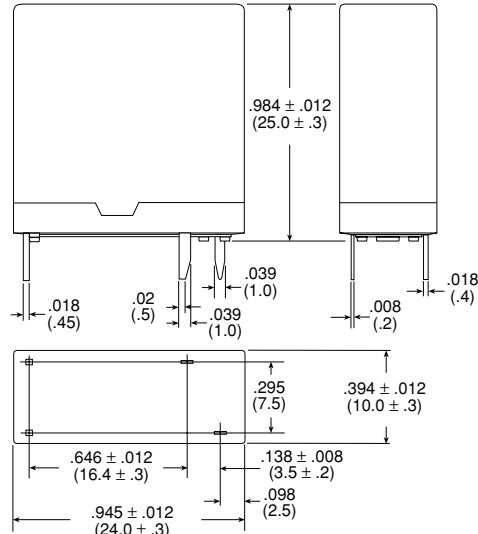
**Other Data**

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

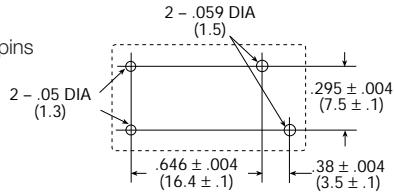
|  |   |
|--|---|
| Ambient temperature                                | -30°C to +70°C  |
| Category of environmental protection<br>IEC 61810  | RTII - flux proof,<br>RTIII - wash tight                                  |
| Shock resistance (functional)                      | 10g   |
| Shock resistance (destructive)                     | 100g  |
| Weight   | 11g   |
| Resistance to soldering heat THT<br>IEC 60068-2-20 | RTII: 270°C/10s<br>RTIII: 260°C/5s  |
| Packaging/unit                                     | tube/25 pcs., carton box/1000 pcs.<br>tray/100 pcs., carton box/1000 pcs. |

**Terminal assignment**

Bottom view on solder pins


**Dimensions**

**PCB layout**

Bottom view on solder pins



## Miniature PCB Relay SDT-R (Continued)

## Product code structure

|  |     |  |    |    |   |   |   |   |      |
|--|-----|--|----|----|---|---|---|---|------|
| Typical product code   | SDT | -S   | -1 | 12 | D | M | R | 2 | ,000 |
| <b>Basic type</b><br>SDT Miniature PCB Relay SDT-R                                   |     |  |    |    |   |   |   |   |      |
| <b>Enclosure</b><br>S Snap on cover  |     |  |    |    |   |   |   |   |      |
| <b>Number of poles</b><br>1 1 pole   |     |  |    |    |   |   |   |   |      |
| <b>Coil voltage</b><br>Coil code: please refer to coil versions table (e.g. 05=5VDC) |     |  |    |    |   |   |   |   |      |
| <b>Coil input</b><br>D Standard (540mW)      L Sensitive (250mW)                     |     |  |    |    |   |   |   |   |      |
| <b>Contact arrangement</b><br>M 1 form A (NO) contact                                |     |  |    |    |   |   |   |   |      |
| <b>Design</b><br>R New design  |     |  |    |    |   |   |   |   |      |
| <b>Coil type</b><br>Blank Standard   | 2   | as LMR2: 150mW coil consumption<br>as DMR2: 250mW coil consumption |    |    |   |   |   |   |      |
| <b>Suffix</b><br>,000 Standard   |     |  |    |    |   |   |   |   |      |

Other types on request

| Product code      | Coil  | Coil sensitivity | Design     | Cont.material      | Arrangement   | Coil type                | Part number |
|-------------------|-------|------------------|------------|--------------------|---------------|--------------------------|-------------|
| SDT-S-105LMR,000  | 5VDC  | Sensitive        | new design | AgSnO <sub>2</sub> | 1 form A (NO) | 250mW standard coil      | 8-1419125-1 |
| SDT-S-112LMR,000  | 12VDC |                  |            |                    |               |                          | 9-1419125-9 |
| SDT-S-124LMR,000  | 24VDC |                  |            |                    |               |                          | 1419126-2   |
| SDT-S-103DMR,000  | 3VDC  | Standard         |            |                    |               | 540mW coil standard coil | 1461267-1   |
| SDT-S-105DMR,000  | 5VDC  |                  |            |                    |               |                          | 8-1419125-0 |
| SDT-S-112DMR,000  | 12VDC |                  |            |                    |               |                          | 9-1419125-7 |
| SDT-S-118DMR,000  | 18VDC |                  |            |                    |               |                          | 1461267-3   |
| SDT-S-124DMR,000  | 24VDC |                  |            |                    |               |                          | 1419126-1   |
| SDT-S-148DMR,000  | 48VDC |                  |            |                    |               |                          | 1461023-2   |
| SDT-S-105LMR2,000 | 5VDC  | Sensitive        |            |                    |               | 150mW coil               | 8-1419125-3 |
| SDT-S-109LMR2,000 | 9VDC  |                  |            |                    |               |                          | 9-1419125-5 |
| SDT-S-105DMR2,000 | 5VDC  | Standard         |            |                    |               | 250mW coil               | 9-1440002-6 |
| SDT-S-109DMR2,000 | 9VDC  |                  |            |                    |               |                          | 9-1440002-8 |

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[9-1419125-2](#)