

## 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    |

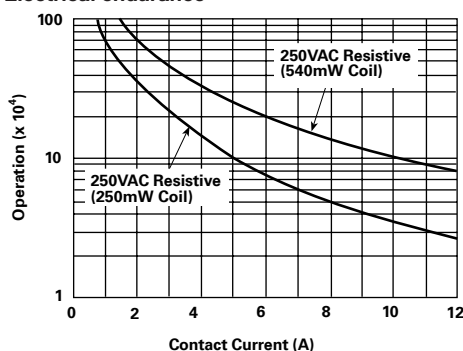
### Contact Data (continued)

#### Coil versions, DC coil

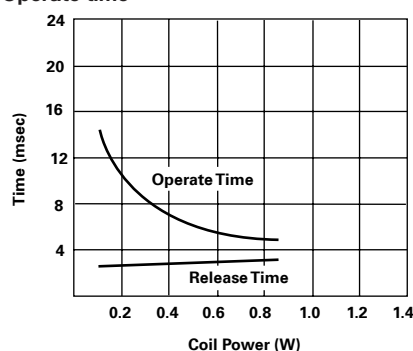
| Coil code                     | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ | Rated coil power mW |
|-------------------------------|-------------------|---------------------|---------------------|-----------------------------------|---------------------|
| <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

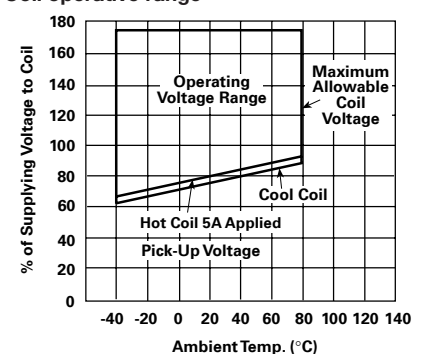
### Electrical endurance



### Operate time



### Coil operative range



## Miniature PCB Relay SDT-R (Continued)

### Insulation Data

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

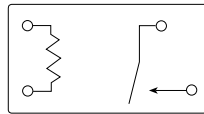
### Other Data

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 |                                                                           |
| IEC 61810                            | RTII - flux proof,<br>RTIII - wash tight                                  |
| Shock resistance (functional)        | 10g                                                                       |
| Shock resistance (destructive)       | 100g                                                                      |
| Weight                               | 11g                                                                       |
| Resistance to soldering heat THT     |                                                                           |
| 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. |

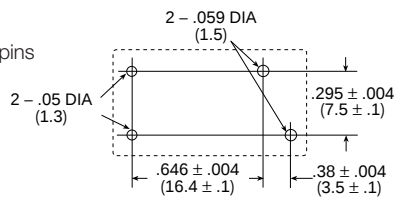
### Terminal assignment

Bottom view on solder pins

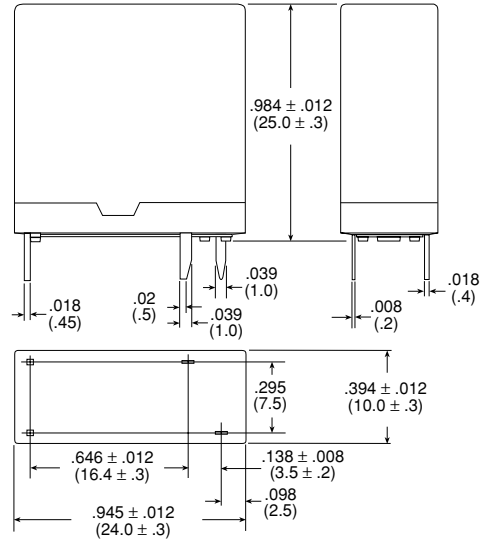


### PCB layout

Bottom view on solder pins



### Dimensions



## 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>          |  | SDT Miniature PCB Relay SDT-R                                                       |    |    |    |   |   |   |        |
| <b>Enclosure</b>           |  | S Snap on cover                                                                     |    |    |    |   |   |   |        |
| <b>Number of poles</b>     |  | 1 1 pole                                                                            |    |    |    |   |   |   |        |
| <b>Coil voltage</b>        |  | Coil code: please refer to coil versions table (e.g. 05=5VDC)                       |    |    |    |   |   |   |        |
| <b>Coil input</b>          |  | D Standard (540mW) L Sensitive (250mW)                                              |    |    |    |   |   |   |        |
| <b>Contact arrangement</b> |  | M 1 form A (NO) contact                                                             |    |    |    |   |   |   |        |
| <b>Design</b>              |  | R New design                                                                        |    |    |    |   |   |   |        |
| <b>Coil type</b>           |  | Blank Standard 2 as LMR2: 150mW coil consumption<br>as DMR2: 250mW coil consumption |    |    |    |   |   |   |        |
| <b>Suffix</b>              |  | ,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<br>standard coil      | 8-1419125-1 |
| SDT-S-112LMR,000  | 12VDC |                  |            |                    |               |                             | 9-1419125-9 |
| SDT-S-124LMR,000  | 24VDC | Standard         |            |                    |               | 540mW coil<br>standard coil | 1419126-2   |
| SDT-S-103DMR,000  | 3VDC  |                  |            |                    |               |                             | 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 | Sensitive        |            |                    |               | 150mW coil                  | 1461023-2   |
| SDT-S-105LMR2,000 | 5VDC  |                  |            |                    |               |                             | 8-1419125-3 |
| SDT-S-109LMR2,000 | 9VDC  | Standard         |            |                    |               | 250mW coil                  | 9-1419125-5 |
| SDT-S-105DMR2,000 | 5VDC  |                  |            |                    |               |                             | 9-1440002-6 |
| SDT-S-109DMR2,000 | 9VDC  |                  |            |                    |               |                             | 9-1440002-8 |



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- Подбор аналогов;
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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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