

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 ₂ |
| 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 ³ ops. |
| TV-5, 120VAC | 25x10 ³ ops. |
| SDT-DMR(2): 10A, 250VAC res, , 70°C | 100x10 ³ ops. |
| TV-8, 120VAC | 25x10 ³ ops. |
| Contact ratings | 5 to 10A |
| Mechanical endurance, DC coil | 10x10 ⁶ operations |

Coil Data

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

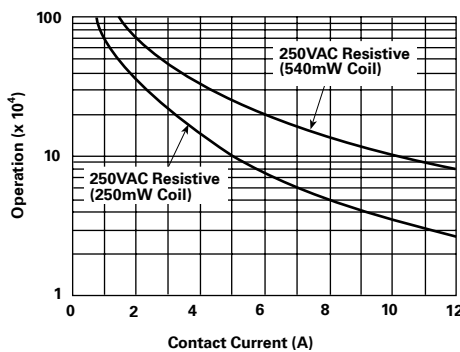
Contact Data (continued)

Coil versions, DC coil

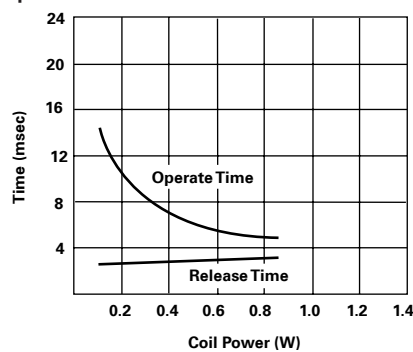
| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ω±10% | Rated coil power mW |
|-------------------------------|-------------------|---------------------|---------------------|-----------------------|---------------------|
| SDT-LMR & SDT-DMR2 | | | | | |
| 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 |
| SDT-DMR | | | | | |
| 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 |
| SDT-LMR2 | | | | | |
| 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

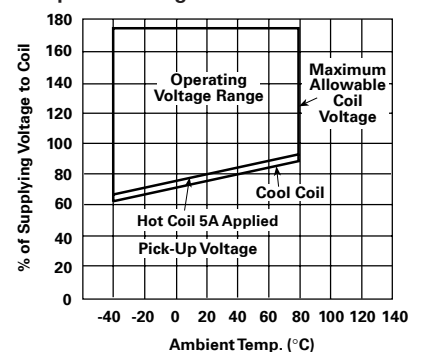
Electrical endurance



Operate time



Coil operative range



Miniature PCB Relay SDT-R (Continued)

Insulation Data

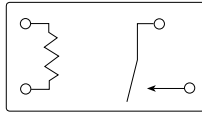
| | |
|-----------------------------|----------------------|
| Initial dielectric strength | |
| between open contacts | 1000V _{rms} |
| between contact and coil | 4000V _{rms} |
| Clearance/creepage | |
| between contact and coil | >1.6/3.2mm |

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 | |
| Ambient temperature | -30°C to +70°C |
| Category of environmental protection | |
| IEC 61810 | RTII - flux proof, 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 RTIII: 260°C/5s |
| Packaging/unit | tube/25 pcs., carton box/1000 pcs. tray/100 pcs., carton box/1000 pcs. |

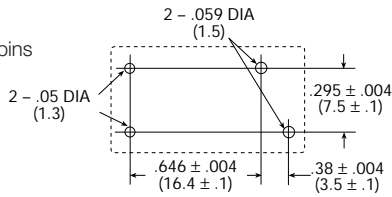
Terminal assignment

Bottom view on solder pins

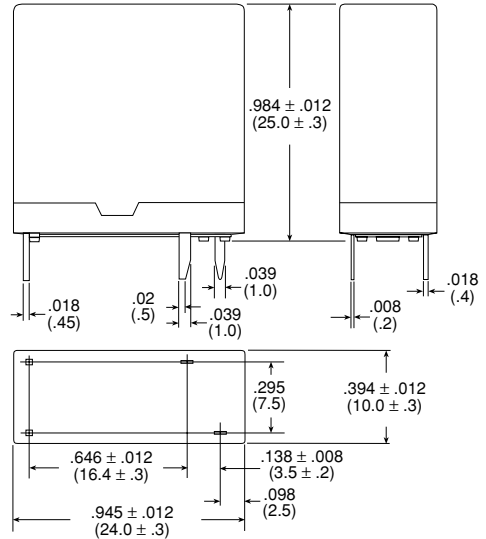


PCB layout

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 |
| Basic type | SDT Miniature PCB Relay SDT-R | | | | | | | | | |
| Enclosure | S Snap on cover | | | | | | | | | |
| Number of poles | 1 1 pole | | | | | | | | | |
| Coil voltage | Coil code: please refer to coil versions table (e.g. 05=5VDC) | | | | | | | | | |
| Coil input | D Standard (540mW) | | | | | L Sensitive (250mW) | | | | |
| Contact arrangement | M 1 form A (NO) contact | | | | | | | | | |
| Design | R New design | | | | | | | | | |
| Coil type | Blank Standard | | | 2 as LMR2: 150mW coil consumption as DMR2: 250mW coil consumption | | | | | | |
| Suffix | ,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 ₂ | 1 form A (NO) | 250mW | 8-1419125-1 |
| SDT-S-112LMR,000 | 12VDC | | | | | standard coil | 9-1419125-9 |
| SDT-S-124LMR,000 | 24VDC | | | | | | 1419126-2 |
| SDT-S-103DMR,000 | 3VDC | Standard | | | | 540mW coil | 1461267-1 |
| SDT-S-105DMR,000 | 5VDC | | | | | standard coil | 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 |