

Overview

The TRS Thermal Reed Switch is a highly reliable, precise temperature-sensitive switch ideal for energy conservation.

Its unique proprietary design features a magnet and a temperature-sensing soft ferromagnetic substance called Thermorite®. The material's magnetic flux density decreases as the temperature increases turning it into a paramagnetic substance at the Curie temperature.

These products have also been attested by the International Relay Association.

Applications

Typical applications include temperature detection and overheat monitoring of electric appliances, heat-retention heater control for rice cookers, defrost for air conditioners and vending machines, roll heater temperature control for copying machines, radiator water temperature detection for automotive electric fan control.

Benefits

- High reliability for on/off operations
- High-speed response
- Long operational life
- Excellent environmental durability
- Extremely simple circuit design
- Compact, light and easy to handle
- Dust, explosion and corrosion-proof
- Wide range of operating temperatures available from -10°C to $+130^{\circ}\text{C}$
- Excellent temperature accuracy of $\pm 2.5^{\circ}\text{C}$
- UL and CSA approved for TRS5***BLRU 100V
- UL approved for TRS5***BLRVU 200V
- RoHS/REACH compliant

Axial Type



Wire Harness Type



Case Type



Molded Type



Ordering Information

| M- | TRS | 3- | 50 | | | M | CR | 00 | V | U |
|----------------------|--------|--|--|--|--|-----------------------|--|--|----------------------------|---|
| Shape | Series | Maximum Opening/Closing Power (W) | Operating Temperature (°C) | | | Contact Type | Shape Classification | Lead Type | Rated Voltage (VDC) | Approvals |
| Blank M = Mold | TRS | 1 = 10.0 W 3 = 35.0 W 5 = 60.5 W | M10 = -10°C 0 = 0°C 5 = 5°C 10 = 10°C 15 = 15°C 20 = 20°C 25 = 25°C 30 = 30°C 35 = 35°C 40 = 40°C | 45 = 45°C 50 = 50°C 55 = 55°C 60 = 60°C 65 = 65°C 70 = 70°C 75 = 75°C 80 = 80°C 85 = 85°C 90 = 90°C | 95 = 95°C 100 = 100°C 105 = 105°C 110 = 110°C 115 = 115°C 120 = 120°C 125 = 125°C 130 = 130°C | B = Break M = Make | Blank = Molded axial CR = C shape fixing bar LR = L shape fixing bar SR = S shape | Blank 00 = Wire harness 01 = Lead terminal 01E = Lead terminal (S shape only) | Blank = 100 V V = 200 V | Blank = No approvals U = UL and CSA approved for 100 V and UL approved for 200 V |

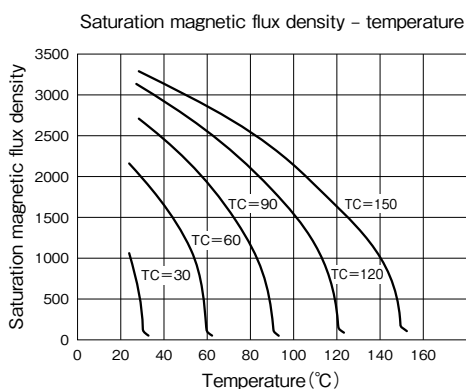
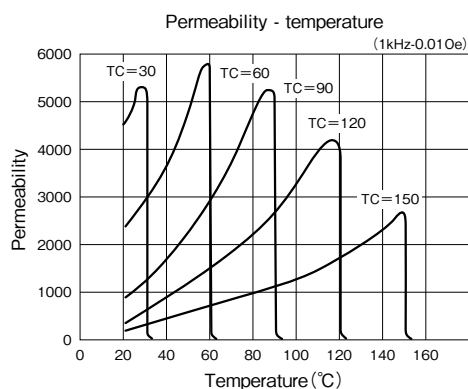
Structures and Principles of Operation

Thermal Reed Switches (TRS) are temperature-sensing switches composed of a magnet and a temperature-sensing soft ferromagnetic substance called Thermorite. This material's saturation magnetic flux density decreases as the temperature increases, and it turns into a paramagnetic substance at its Curie temperature.

Thermorite properties

- Thermorite changes its magnetic property rapidly at its Curie temperature, providing quick response times.
- The Curie temperature of Thermorite does not vary with time, as it is based on a compounding ratio.
- Thermorite is stable against moisture and hazardous gas.

Thermal property of Thermorite



TC=Curie temperature

Structures and Principles of Operation cont.

Reed switch structure

- The reed switch is a contact switch comprised of a pair of Fe-Ni alloy reeds encased in a glass tube with inactive gas. The reeds are switched on or off by the magnetic field of a permanent magnet or magnet coil.
- The reeds in the glass tube become magnetized from the magnetic field, allowing the two reeds to make contact and connect (switch on). When the magnetic field disappears, the reeds separate and disconnect (switch off).
- The glass encasement of the reeds ensures high environmental resistance and a long operational life.



TRS principle: Break (B) type



TRS principle: Make (M) type

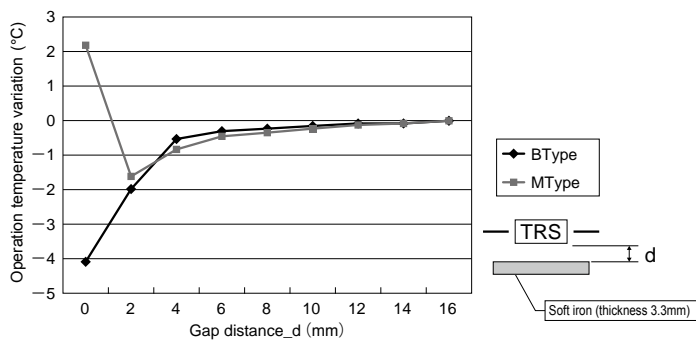


External Magnetic Field

TRS installation in external magnetic field



Ferromagnetic material influence



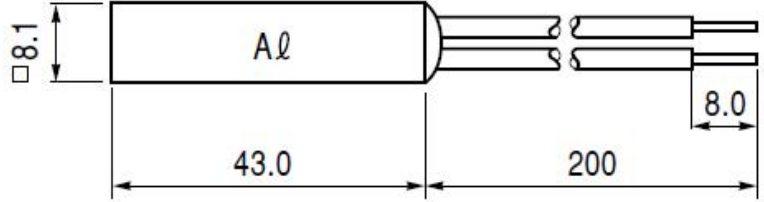
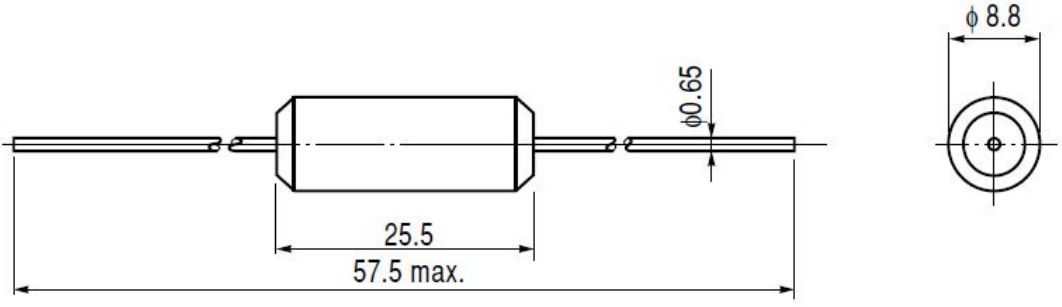
Dimensions – Millimeters

| Part Number | Dimensions - Millimeters |
|---------------------------------|--------------------------|
| TRS5-***BLR00 TRS5-***BLR00V | |
| TRS1-***MLR00V TRS3-***MLR00 | |
| TRS5-***BLRU TRS5-***BLRVU | |

Dimensions – Millimeters cont.

| Part Number | Dimensions - Millimeters |
|--|--------------------------|
| TRS1-***MCR01V TRS3-***MCR01 TRS5-***BCR01 TRS5-***BCR01V | |
| TRS5-***BCR00 TRS5-***BCR00V | |
| TRS1-***MCR00V TRS3-***MCR00 | |

Dimensions – Millimeters cont.

| Part Number | Dimensions - Millimeters |
|--|--|
| TRS1-***MSR01EV TRS3-***MSR01E TRS5-***BSR01E TRS5-***BSR01EV |  <p>Technical drawing of a TRS thermal reed switch. The main body has a diameter of 8.1 mm and a length of 43.0 mm. A section of the device has a length of 200 mm and a diameter of 8.0 mm.</p> |
| M-TRS5-***B |  <p>Technical drawing of an M-TRS5-***B thermal reed switch. The main body has a length of 25.5 mm and a total length of 57.5 mm max. The diameter is 8.8 mm. A detail shows a diameter of 0.65 mm.</p> |

Environmental Compliance

All KEMET Thermal Sensors are RoHS compliant.



Approvals

| Certification Body | File Number | Part Type |
|--------------------|-------------|-------------------------------|
| UL | E67648 | TRS5-***BLRU TRS5-***BLRVU |
| CSA | LR50414 | TRS5-***BLRU |

Performance Characteristics

| Item | Performance Characteristics | |
|--------------------|--|--|
| Operations | All types | 100,000 times |
| Condition | TRS5-***BCR00, TRS5-***BLR00, TRS5-***BSR01E, TRS5-***BLRU and TRS5-***BCR01 | 110 VAC – 200 Ω (purely resistive load) |
| | TRS3-***MCR00, TRS3-***MLR00, TRS3-***MSR01E and TRS3-***MCR01 | 110 VAC – 346 Ω (purely resistive load) |
| | TRS5-***BCR00V, TRS5-***BLR00V, TRS5-***BSR01EV and TRS5-***BCR01V | 240 VAC – 1,143 Ω (purely resistive load) |
| | TRS3-***MCR00V, TRS3-***MLR00V, TRS3-***MSR01EV and TRS1-***MCR01V | 200 VAC – 4,445 Ω (purely resistive load) |
| | TRS5-***BLRVU | 240 VAC – 952 Ω (purely resistive load) |
| | M-TRS5-***B | 100 VAC – 200 Ω (purely resistive load) |
| Judgement | All types | 1) No stick 2) Contact resistance be within 500 mΩ |
| Dip Washing | TRS5-***BCR01, TRS3-***MCR01, TRS5-***BCR01V, TRS1-***MCR01V and M-TRS5-***B | Using isopropyl alcohol at normal temperature for 90 seconds |
| Lead Wire Material | TRS5-***BCR00, TRS5-***BLR00, TRS3-***MCR00, TRS3-***MLR00, TRS5-***BCR00V, TRS5-***BLR00V, TRS3-***MCR00V, TRS3-***MLR00V, TRS5-***BLRU and TRS5-***BLRVU | Silicone rubber glass braided wire |
| | TRS5-***BSR01E, TRS3-***MSR01E, TRS5-***BSR01EV and TRS3-***MSR01EV | Vinyl chloride wire |
| Lead Wire Size | TRS5-***BCR00, TRS5-***BLR00, TRS3-***MCR00, TRS3-***MLR00, TRS5-***BCR00V, TRS5-***BLR00V, TRS3-***MCR00V, TRS3-***MLR00V, TRS5-***BLRU and TRS5-***BLRVU | 0.5 mm ² |
| | TRS5-***BSR01E, TRS3-***MSR01E, TRS5-***BSR01EV and TRS3-***MSR01EV | 0.3 mm ² |
| Lead Wire Color | TRS5-***BCR00, TRS5-***BLR00, TRS3-***MCR00, TRS3-***MLR00, TRS5-***BCR00V, TRS5-***BLR00V, TRS3-***MCR00V and TRS3-***MLR00V | Red and white |
| | TRS5-***BSR01E, TRS3-***MSR01E, TRS5-***BSR01EV and TRS3-***MSR01EV | Black |
| | TRS5-***BLRU and TRS5-***BLRVU | White |

Insulation & Temperature Characteristics

| Shape Type | Insulation Withstand Voltage ¹ | Minimum Insulation Resistance ¹ | Operating Temperature Range | Switching Temperature Range | Switching Temperature Precision ² | Differential Temperature ³ |
|------------|--|--|-----------------------------|-----------------------------|--|---------------------------------------|
| CR00 | 1,500 VAC/1 minute or 1,800 VAC/1 second | 500 VDC to 100 MΩ | -20°C to +130°C | 0°C to +130°C | ±2.5°C | 10°C Maximum" |
| CR01 | | | | | | |
| LR00 | | | | | | |
| LRU | | | | | | |
| SR01E | | | -20°C to +100°C | -10°C to +100°C | | |
| M-TRS | 1,000 VAC/1 minute or 1,200 VAC/1 second | | -20°C to +150°C | -10°C to +130°C | | |

¹ Between wire harness and mounting resin surface.

² Switching temperature precision does not include measurement error.

³ The differential temperature is also referred to as the hysteresis temperature on thermal sensors.

Table 1 – Ratings & Part Number Reference

| Part Number | Switching Temperature (°C) | Maximum Differential Temperature (°C) | Contact Type | Maximum Opening/Closing Voltage (V) | Maximum Opening/Closing Current (A) | Maximum Opening/Closing Power (W) | Minimum Opening/Closing Current | Maximum Contact Resistance (mΩ) | Weight (g) | Approval |
|----------------|----------------------------|---------------------------------------|--------------|-------------------------------------|-------------------------------------|-----------------------------------|---------------------------------|---------------------------------|------------|----------|
| TRS1-0MCR00V | 0°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-10MCR00V | 10°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-20MCR00V | 20°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-30MCR00V | 30°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-40MCR00V | 40°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-50MCR00V | 50°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-60MCR00V | 60°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-70MCR00V | 70°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-80MCR00V | 80°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-90MCR00V | 90°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-100MCR00V | 100°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-110MCR00V | 110°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-120MCR00V | 120°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS1-0MCR01V | 0°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-10MCR01V | 10°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-20MCR01V | 20°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-30MCR01V | 30°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-40MCR01V | 40°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-50MCR01V | 50°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-60MCR01V | 60°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-70MCR01V | 70°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |

Table 1 – Ratings & Part Number Reference cont.

| Part Number | Switching Temperature (°C) | Maximum Differential Temperature (°C) | Contact Type | Maximum Opening/Closing Voltage (V) | Maximum Opening/Closing Current (A) | Maximum Opening/Closing Power (W) | Minimum Opening/Closing Current | Maximum Contact Resistance (mΩ) | Weight (g) | Approval |
|-----------------|----------------------------|---------------------------------------|--------------|-------------------------------------|-------------------------------------|-----------------------------------|---------------------------------|---------------------------------|------------|----------|
| TRS1-80MCR01V | 80°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-90MCR01V | 90°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-100MCR01V | 100°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-110MCR01V | 110°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-120MCR01V | 120°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS1-0MLR00V | 0°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-10MLR00V | 10°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-20MLR00V | 20°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-30MLR00V | 30°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-40MLR00V | 40°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-50MLR00V | 50°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-60MLR00V | 60°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-70MLR00V | 70°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-80MLR00V | 80°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-90MLR00V | 90°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-100MLR00V | 100°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-110MLR00V | 110°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-120MLR00V | 120°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-130MLR00V | 130°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS1-M10MSR01EV | -10°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-0MSR01EV | 0°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-10MSR01EV | 10°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-20MSR01EV | 20°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-30MSR01EV | 30°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-40MSR01EV | 40°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-50MSR01EV | 50°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-60MSR01EV | 60°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-70MSR01EV | 70°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-80MSR01EV | 80°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-90MSR01EV | 90°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS1-100MSR01EV | 100°C ±2.5°C | 10°C | Make | 220 AC | 0.045 AC | 10.0 AC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-0MCR00 | 0°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-10MCR00 | 10°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-20MCR00 | 20°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-30MCR00 | 30°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-40MCR00 | 40°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-50MCR00 | 50°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-60MCR00 | 60°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-70MCR00 | 70°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-80MCR00 | 80°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-90MCR00 | 90°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |

Table 1 – Ratings & Part Number Reference cont.

| Part Number | Switching Temperature (°C) | Maximum Differential Temperature (°C) | Contact Type | Maximum Opening/Closing Voltage (V) | Maximum Opening/Closing Current (A) | Maximum Opening/Closing Power (W) | Minimum Opening/Closing Current | Maximum Contact Resistance (mΩ) | Weight (g) | Approval |
|----------------|----------------------------|---------------------------------------|--------------|-------------------------------------|-------------------------------------|-----------------------------------|---------------------------------|---------------------------------|------------|----------|
| TRS3-100MCR00 | 100°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-110MCR00 | 110°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-120MCR00 | 120°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.1 | - |
| TRS3-0MCR01 | 0°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-10MCR01 | 10°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-20MCR01 | 20°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-30MCR01 | 30°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-40MCR01 | 40°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-50MCR01 | 50°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-60MCR01 | 60°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-70MCR01 | 70°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-80MCR01 | 80°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-90MCR01 | 90°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-100MCR01 | 100°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-110MCR01 | 110°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-120MCR01 | 120°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.4 | - |
| TRS3-0MLR00 | 0°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-10MLR00 | 10°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-20MLR00 | 20°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-30MLR00 | 30°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-40MLR00 | 40°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-50MLR00 | 50°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-60MLR00 | 60°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-70MLR00 | 70°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-80MLR00 | 80°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-90MLR00 | 90°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-100MLR00 | 100°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-110MLR00 | 110°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-120MLR00 | 120°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-130MLR00 | 130°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 150 | 8.5 | - |
| TRS3-M10MSR01E | -10°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-0MSR01E | 0°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-10MSR01E | 10°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-20MSR01E | 20°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-30MSR01E | 30°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-40MSR01E | 40°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-50MSR01E | 50°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-60MSR01E | 60°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-70MSR01E | 70°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-80MSR01E | 80°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS3-90MSR01E | 90°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |

Table 1 – Ratings & Part Number Reference cont.

| Part Number | Switching Temperature (°C) | Maximum Differential Temperature (°C) | Contact Type | Maximum Opening/Closing Voltage (V) | Maximum Opening/Closing Current (A) | Maximum Opening/Closing Power (W) | Minimum Opening/Closing Current | Maximum Contact Resistance (mΩ) | Weight (g) | Approval |
|----------------|----------------------------|---------------------------------------|--------------|-------------------------------------|-------------------------------------|-----------------------------------|---------------------------------|---------------------------------|------------|----------|
| TRS3-100MSR01E | 100°C ±2.5°C | 10°C | Make | 140 AC/200 DC | 0.500 AC/DC | 35.0 AC/10.0 DC | 1 mA/5 VDC | 300 | 7.2 | - |
| TRS5-0BCR00 | 0°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-10BCR00 | 10°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-20BCR00 | 20°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-30BCR00 | 30°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-40BCR00 | 40°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-50BCR00 | 50°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-60BCR00 | 60°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-70BCR00 | 70°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-80BCR00 | 80°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-90BCR00 | 90°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-100BCR00 | 100°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-110BCR00 | 110°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-120BCR00 | 120°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-0BCR00V | 0°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-10BCR00V | 10°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-20BCR00V | 20°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-30BCR00V | 30°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-40BCR00V | 40°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-50BCR00V | 50°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-60BCR00V | 60°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-70BCR00V | 70°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-80BCR00V | 80°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-90BCR00V | 90°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-100BCR00V | 100°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-110BCR00V | 110°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-120BCR00V | 120°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 6.8 | - |
| TRS5-0BCR01 | 0°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-10BCR01 | 10°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-20BCR01 | 20°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-30BCR01 | 30°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-40BCR01 | 40°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-50BCR01 | 50°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-60BCR01 | 60°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-70BCR01 | 70°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-80BCR01 | 80°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-90BCR01 | 90°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-100BCR01 | 100°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-110BCR01 | 110°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-120BCR01 | 120°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-0BCR01V | 0°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |

Table 1 – Ratings & Part Number Reference cont.

| Part Number | Switching Temperature (°C) | Maximum Differential Temperature (°C) | Contact Type | Maximum Opening/Closing Voltage (V) | Maximum Opening/Closing Current (A) | Maximum Opening/Closing Power (W) | Minimum Opening/Closing Current | Maximum Contact Resistance (mΩ) | Weight (g) | Approval |
|----------------|----------------------------|---------------------------------------|--------------|-------------------------------------|-------------------------------------|-----------------------------------|---------------------------------|---------------------------------|------------|----------|
| TRS5-10BCR01V | 10°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-20BCR01V | 20°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-30BCR01V | 30°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-40BCR01V | 40°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-50BCR01V | 50°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-60BCR01V | 60°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-70BCR01V | 70°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-80BCR01V | 80°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-90BCR01V | 90°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-100BCR01V | 100°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-110BCR01V | 110°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-120BCR01V | 120°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 3.1 | - |
| TRS5-0BLR00 | 0°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-10BLR00 | 10°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-20BLR00 | 20°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-30BLR00 | 30°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-40BLR00 | 40°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-50BLR00 | 50°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-60BLR00 | 60°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-70BLR00 | 70°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-80BLR00 | 80°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-90BLR00 | 90°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-100BLR00 | 100°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-110BLR00 | 110°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-120BLR00 | 120°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-130BLR00 | 130°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-0BLR00V | 0°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-10BLR00V | 10°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-20BLR00V | 20°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-30BLR00V | 30°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-40BLR00V | 40°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-50BLR00V | 50°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-60BLR00V | 60°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-70BLR00V | 70°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-80BLR00V | 80°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-90BLR00V | 90°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-100BLR00V | 100°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-110BLR00V | 110°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-120BLR00V | 120°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-130BLR00V | 130°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 7.3 | - |
| TRS5-0BLRU | 0°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |

Table 1 – Ratings & Part Number Reference cont.

| Part Number | Switching Temperature (°C) | Maximum Differential Temperature (°C) | Contact Type | Maximum Opening/Closing Voltage (V) | Maximum Opening/Closing Current (A) | Maximum Opening/Closing Power (W) | Minimum Opening/Closing Current | Maximum Contact Resistance (mΩ) | Weight (g) | Approval |
|---------------|----------------------------|---------------------------------------|--------------|-------------------------------------|-------------------------------------|-----------------------------------|---------------------------------|---------------------------------|------------|----------|
| TRS5-5BLRU | 5°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-10BLRU | 10°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-15BLRU | 15°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-20BLRU | 20°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-25BLRU | 25°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-30BLRU | 30°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-35BLRU | 35°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-40BLRU | 40°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-45BLRU | 45°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-50BLRU | 50°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-55BLRU | 55°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-60BLRU | 60°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-65BLRU | 65°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-70BLRU | 70°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-75BLRU | 75°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-80BLRU | 80°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-85BLRU | 85°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-90BLRU | 90°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-95BLRU | 95°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-100BLRU | 100°C ±2.5°C | 10°C | Break | 140 AC | 0.500 AC | 50.0 AC | 1 mA/5 VDC | 150 | 8.5 | UL & CSA |
| TRS5-0BLRVU | 0°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-5BLRVU | 5°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-10BLRVU | 10°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-15BLRVU | 15°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-20BLRVU | 20°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-25BLRVU | 25°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-30BLRVU | 30°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-35BLRVU | 35°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-40BLRVU | 40°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-45BLRVU | 45°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-50BLRVU | 50°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-55BLRVU | 55°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-60BLRVU | 60°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-65BLRVU | 65°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-70BLRVU | 70°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-75BLRVU | 75°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-80BLRVU | 80°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-85BLRVU | 85°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-90BLRVU | 90°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-95BLRVU | 95°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |
| TRS5-100BLRVU | 100°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 150 | 8.5 | UL |

Table 1 – Ratings & Part Number Reference cont.

| Part Number | Switching Temperature (°C) | Maximum Differential Temperature (°C) | Contact Type | Maximum Opening/ Closing Voltage (V) | Maximum Opening/ Closing Current (A) | Maximum Opening/ Closing Power (W) | Minimum Opening/ Closing Current | Maximum Contact Resistance (mΩ) | Weight (g) | Approval |
|-----------------|----------------------------|---------------------------------------|--------------|--------------------------------------|--------------------------------------|------------------------------------|----------------------------------|---------------------------------|------------|----------|
| TRS5-M10BSR01E | -10°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-0BSR01E | 0°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-10BSR01E | 10°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-20BSR01E | 20°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-30BSR01E | 30°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-40BSR01E | 40°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-50BSR01E | 50°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-60BSR01E | 60°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-70BSR01E | 70°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-80BSR01E | 80°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-90BSR01E | 90°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-100BSR01E | 100°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-M10BSR01EV | -10°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-0BSR01EV | 0°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-10BSR01EV | 10°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-20BSR01EV | 20°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-30BSR01EV | 30°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-40BSR01EV | 40°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-50BSR01EV | 50°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-60BSR01EV | 60°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-70BSR01EV | 70°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-80BSR01EV | 80°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-90BSR01EV | 90°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| TRS5-100BSR01EV | 100°C ±2.5°C | 10°C | Break | 264 AC | 0.275 AC | 60.5 AC | 1 mA/5 VDC | 300 | 6.6 | - |
| M-TRS5-M10B | -10°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-0B | 0°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-10B | 10°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-20B | 20°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-30B | 30°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-40B | 40°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-50B | 50°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-60B | 60°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-70B | 70°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-80B | 80°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-90B | 90°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-100B | 100°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-110B | 110°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-120B | 120°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |
| M-TRS5-130B | 130°C ±2.5°C | 10°C | Break | 140 AC/200 DC | 0.550 AC/DC | 60.5 AC/10.0 DC | 1 mA/5 VDC | 150 | 4.1 | - |

Table 2 – Ratings & Part Number Reference

| Part Type | Packaging Type | Pieces per Tray | Pieces per Box |
|-----------|----------------|-----------------|----------------|
| LR00 | Rubber Band | 50 | 500 |
| CR00 | | | 600 |
| LRU | | | |
| LRVU | | | |
| SR01E | | | 25 |
| CR01 | Tray | 30 | 600 |
| M-TRS | | 50 | 1,000 |

Soldering

TRS1-***MCR01V, TRS3-***MCR01, TRS5-***BCR01 and TRS5-***BCR01V

| | | |
|-----------------------|------------------------|-------------------|
| Flow Soldering | Preheating Temperature | 100 – 150°C |
| | Preheating Time | Within 60 seconds |
| | Heating Temperature | 260°C |
| | Heating Time | 10 ±1 seconds |
| Iron Soldering | Temperature of Tip | 350°C or lower |
| | Worktime | Within 5 seconds |

M-TRS5-***B

| | | |
|-----------------------|------------------------|-------------------|
| Flow Soldering | Preheating Temperature | 100 – 150°C |
| | Preheating Time | Within 60 seconds |
| | Heating Temperature | 260°C |
| | Heating Time | 10 ±1 seconds |
| Iron Soldering | Temperature of Tip | 320°C or lower |
| | Worktime | Within 4 seconds |

Marking

CR01



LR00



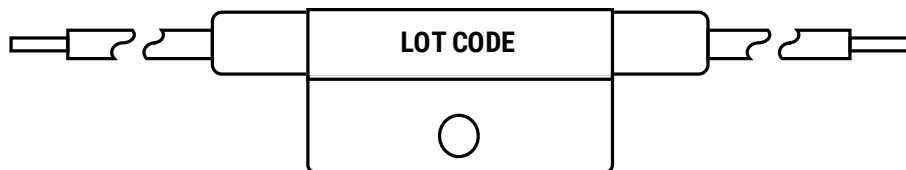
SR01E



| Lot Code 12345 | | |
|------------------------|----------------|---|
| Operating Temperature | (1) 1-3 digits | M10 = -10°C 65 = 65°C 100 = 100°C |
| Contact Type | (2) 1 digit | B = Break M = Make |
| Month of the Year | (3) 1 digit | 1 = January 9 = September X = October Y = November Z = December |
| Last Digit of the Year | (4) 1 digit | 0 = xxx0 1 = xxx1 9 = xxx9 |
| Voltage | (5) 0-1 digit | Blank = 100 V V = 200 V |

Marking cont.

LRU & LRVU



| Lot Code 1234556 | | |
|---------------------------|----------------|---|
| Operating Temperature | (1) 1-3 digits | 0 = 0°C 65 = 65°C 100 = 100°C |
| Contact Type | (2) 1 digit | B = Break |
| Contact Power | (3) 0-1 digit | Blank = 100 V (LRU) G = 200 V (LRVU) |
| Month of the Year | (4) 1 digit | 1 = January 9 = September X = October Y = November Z = December |
| 2 Last Digits of the Year | (5) 2 digits | 10 = xx10 11 = xx11 19 = xx19 |
| Factory ID | (6) 1 digit | 5 = Japan |

Marking cont.

M-TRS



| Lot Code 1-2345 | | |
|------------------------|----------------|---|
| Model | (1) 1 digit | Last Digit of Part Number |
| Operating Temperature | (2) 1-3 digits | M10 = -10°C 60 = 60°C 100 = 100°C |
| Contact Type | (3) 1 digit | B = Break |
| Month of the Year | (4) 1 digit | 1 = January 9 = September X = October Y = November Z = December |
| Last Digit of the Year | (5) 1 digit | 0 = xxx0 1 = xxx1 9 = xxx9 |

Handling Precautions

Precautions to be taken when using Thermal Reed Switches (Please read these precautions before using our products)

- Do NOT use in close proximity to strong magnetic parts.
- Do NOT use product under mechanical weight load.
- Do NOT use if dropped or severely shocked.
- Do NOT use with a greater load than specified.
- Avoid stress (especially torsion) in case of additional processing.
- Thermal Reed Switches have a specific resonance frequency. Please contact a KEMET representative if an oscillation is added.