Thermal Sensors

TRS Thermal Reed Switch

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°C
- Excellent temperature accuracy of ±2.5°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



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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 = Mold 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

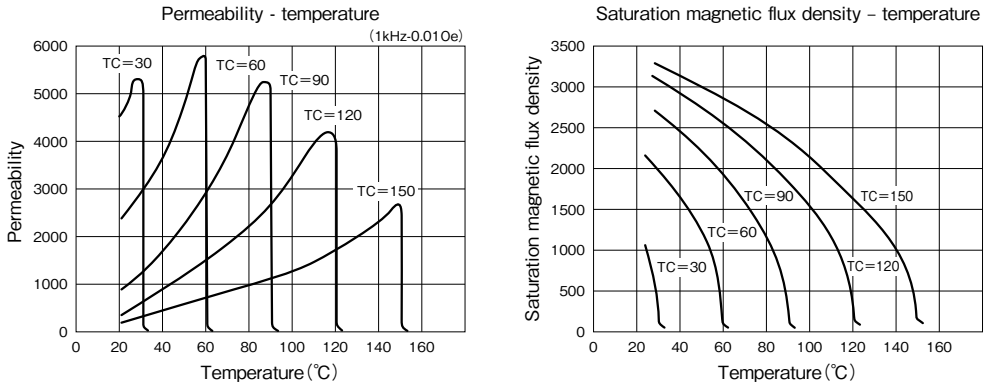
Structures and Principles of Operation

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

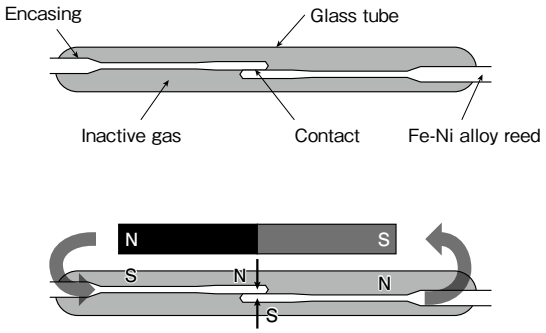


TC=Curie temperature

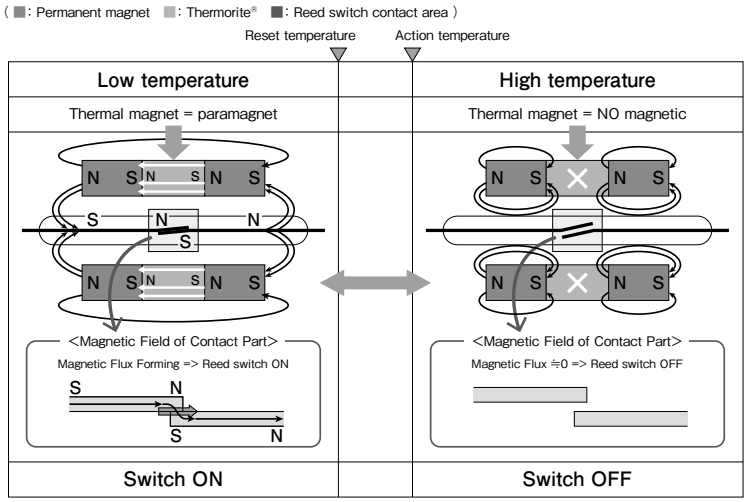
Structures and Principles of Operation cont.

Reed switch structure

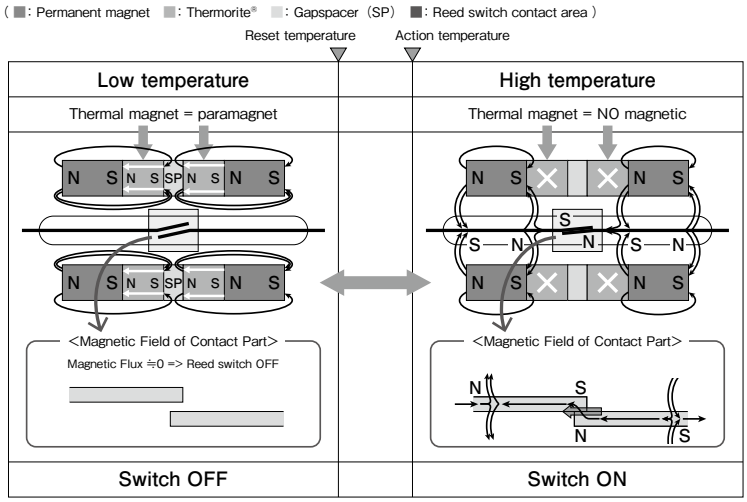
- The reed switch is a contact switch comprised of a pair of Fe-Ni alloy reeds encased in a glass tube with inactive gas. The reeds are switched on or off by the magnetic field of a permanent magnet or magnet coil.
- The reeds in the glass tube become magnetized from the magnetic field, allowing the 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

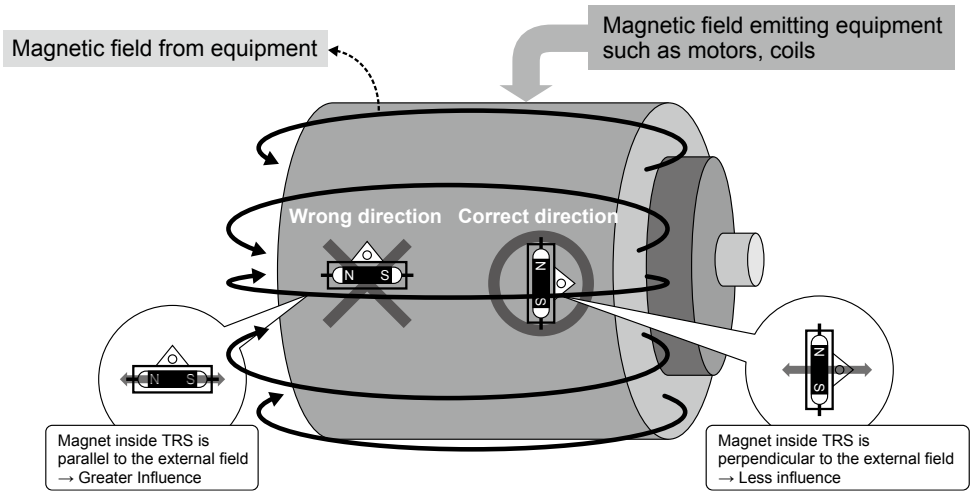


TRS principle: Make (M) type

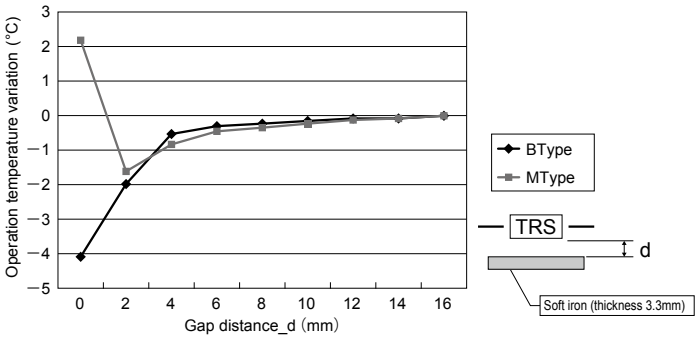


External Magnetic Field

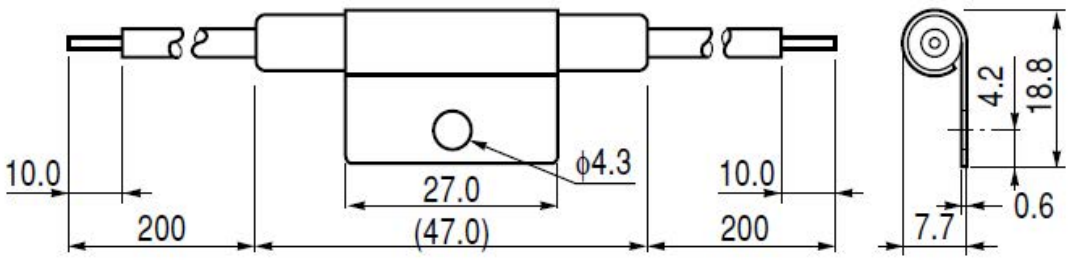
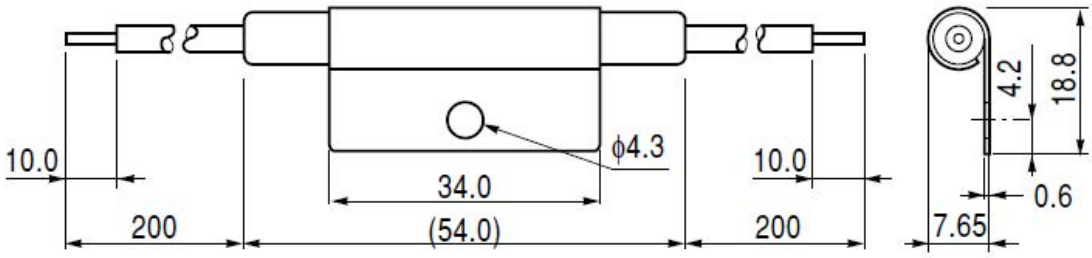
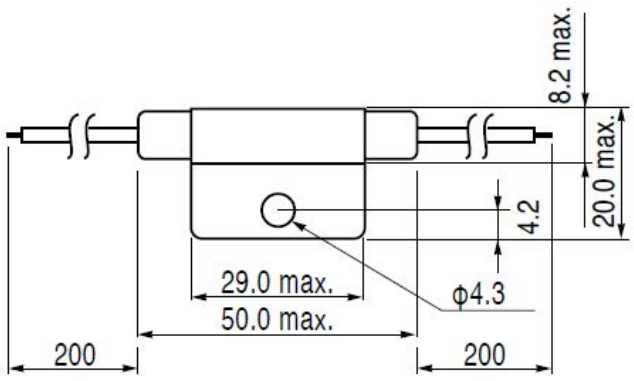
TRS installation in external magnetic field



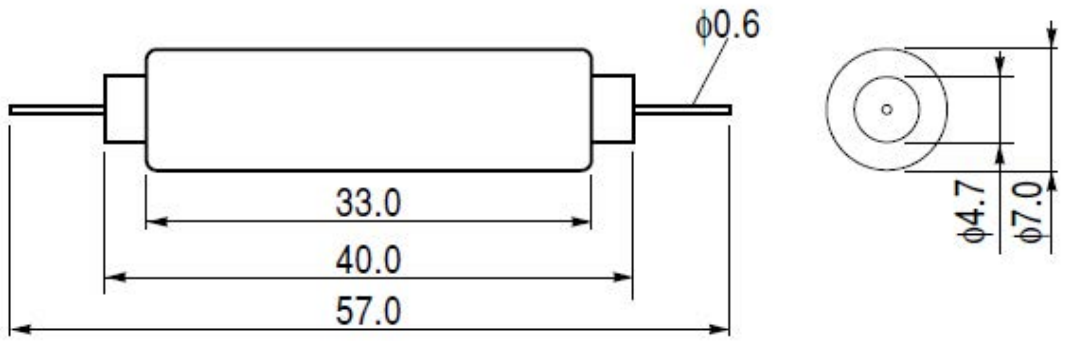
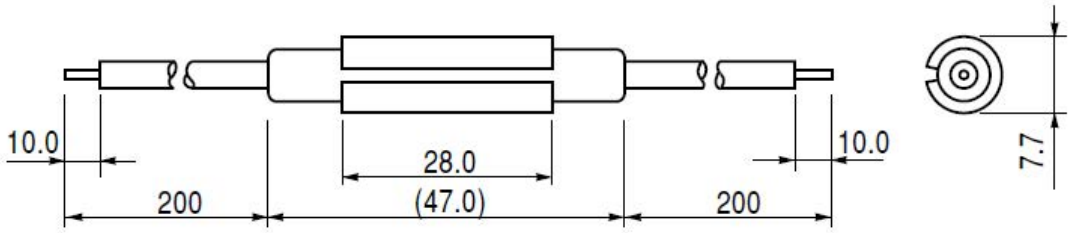
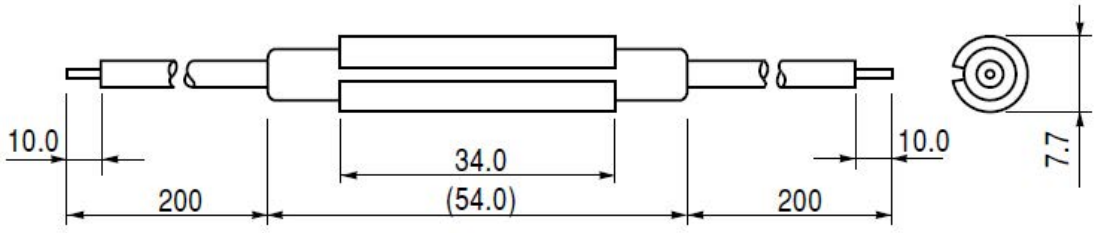
Ferromagnetic material influence



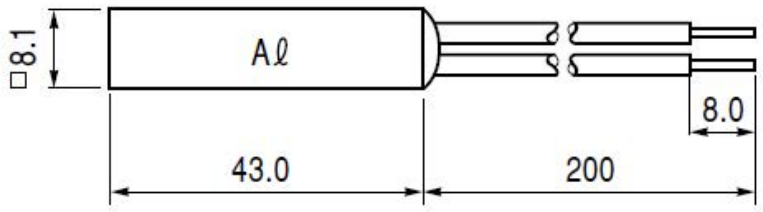
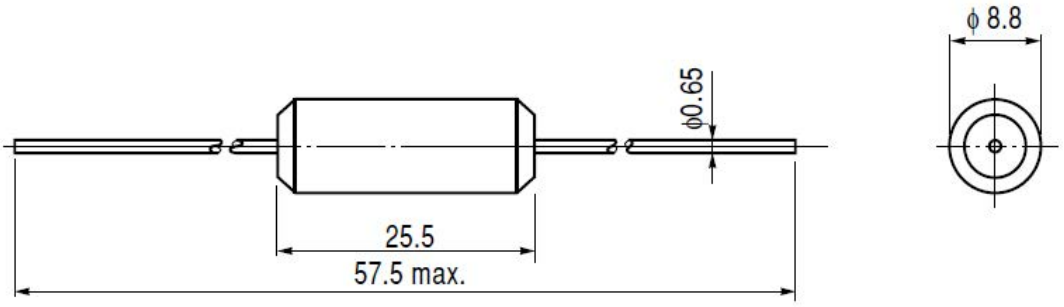
Dimensions – Millimeters

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	
M-TRS5-***B	

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	500
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

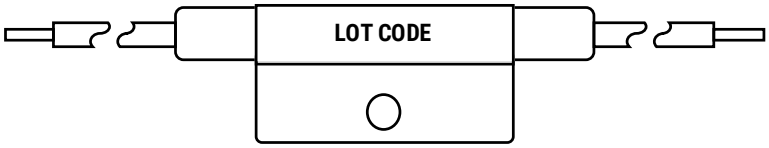
Flow Soldering	Preheating Temperature	100 – 150°C
	Preheating Time	Within 60 seconds
	Heating Temperature	260°C
	Heating Time	10 ±1 seconds
Iron Soldering	Temperature of Tip	320°C or lower
	Worktime	Within 4 seconds

Marking

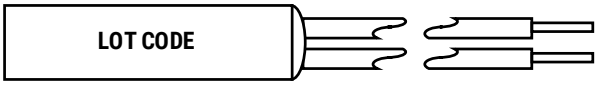
CR01



LR00



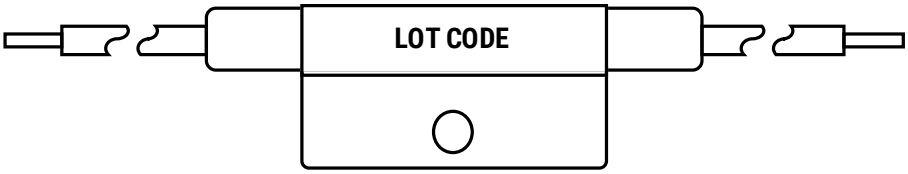
SR01E



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.

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