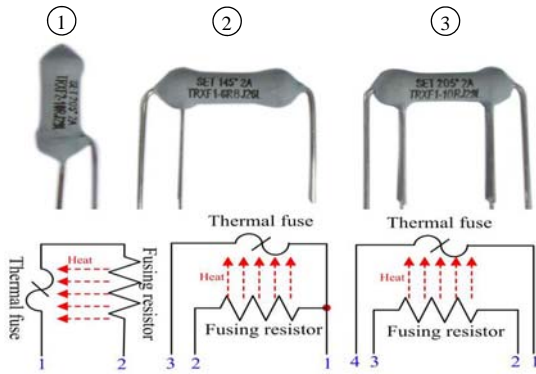




Thermo Fuse Resistor (TRXF)



Key Features

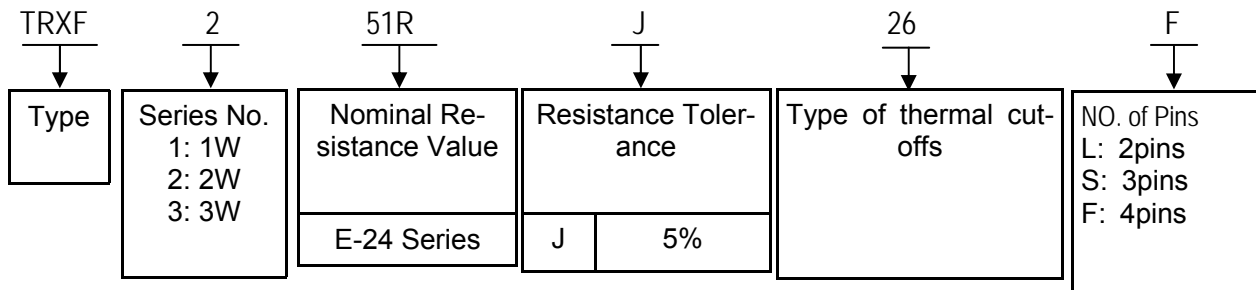
- ◆ Excellent performance against surge/lightning
- ◆ Less action time to ensure the safety
- ◆ Small fault current protection
- ◆ Compact design, high insulation resistance
- ◆ Over current and over temperature protection
- ◆ wave solderable

standards

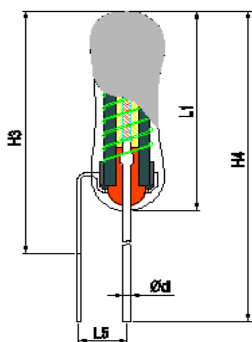
- ◆ IEC 60115-1 :2001
- ◆ GB/T 5729-2003
- ◆ GB 9816-2008
- ◆ IEC60691:2002
- ◆ JIS C 5201-1 :1998
- ◆ UL1412
- ◆ UL60691

Model	Rated Power	Nominal Rated Resistance	Resistance Tolerance	Thermal-links	
				Rated Functioning-Temp. TF(C)	Rated Current I _r (A)
TRXF1	1W	0.47-51Ω	±2%; ±5%	115C~221C	2A
TRXF2	2W	3-68Ω	±2%; ±5%	115C~221C	3A
TRXF3	3W	10-100Ω	±2%; ±5%	115C~221C	5A

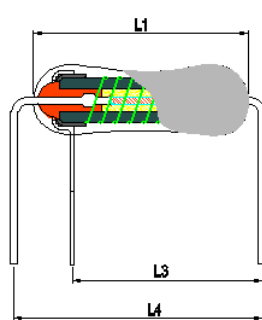
How to order



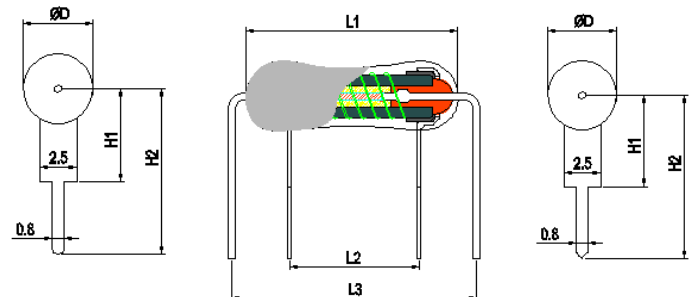
■ 1 Construction 1



■ 2 Construction 2



■ 3 Construction 3

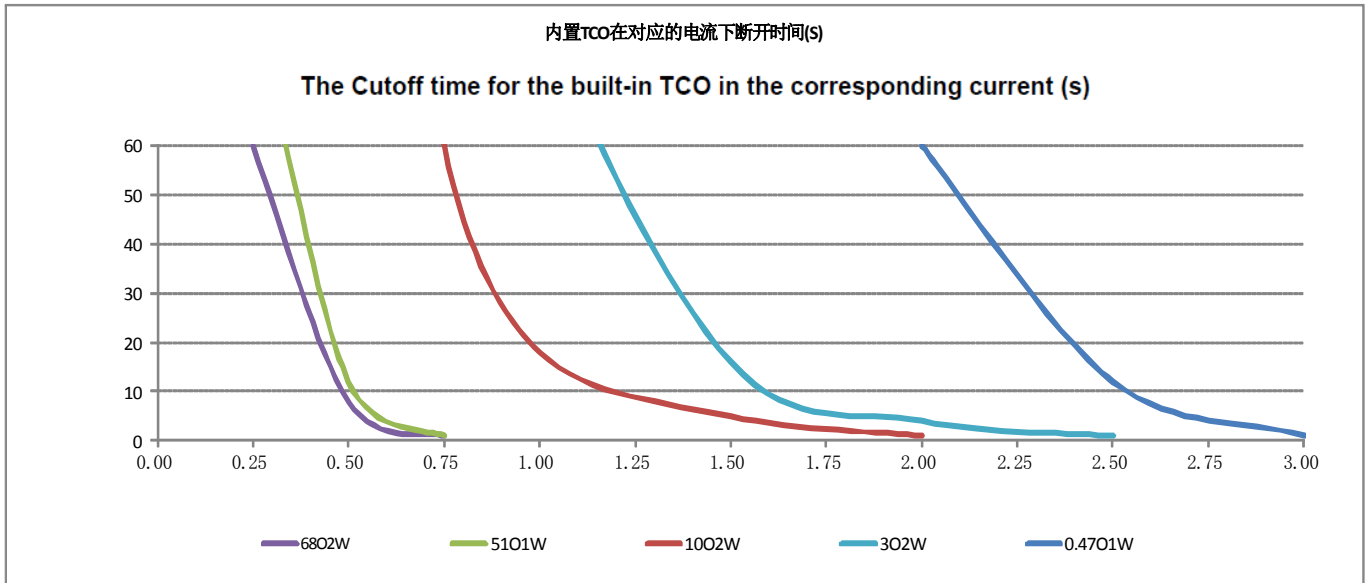


尺寸 Dimensions (mm)

ød	øD	L1	L2	L3	L4	L5	H1	H2	H3	H4
0.56±0.2	4.3±0.2	13±1.0	9±1.0	14±1.0	17±1.0	3.5±0.5	14±1.0	19±1.0	22±2.0	26±2.0



■ RXF Fusing Curve

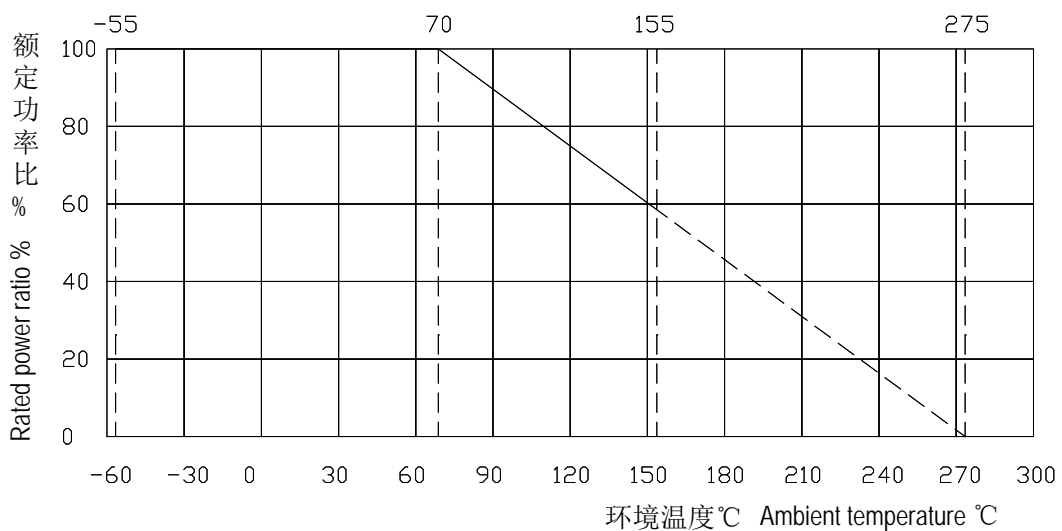


■ TRXF Compare Fusing Characteristics with TRXF and RXF

Fusing time	TRXF			RXF		
	<2R	2R~10R	>10R	<2R	2R~10R	>10R
4	<1H	<1H	<1H	—	—	—
9	<90s	<60s	<40s	—	—	—
12	<60s	<40s	<30s	—	—	—
16	<30s	<15s	<10s	—	<5min	<30s
20	<7.5s	<4s	<4s	<60s	<30s	<15s
25	<4s	<2s	<2s	<30s	<15s	<7.5s

■ Rated Power Decreasing Curve

When ambient temperature is over 70°C, please reduce power according to the picture below.





Thermo Fuse Resistor (TRXF)

Performance Test

Item	Performance	Test methods (Conform to JIS C 5202)
Resistance test	See as parameter	Resistance tolerance should be within $\pm 5\%$.
Temperature coefficient	Within $\pm 300\text{PPM}/\square$	R_0 : Resistance value at room temp. (T_0). R_1 : Resistance value at room temp. plus $100\square$ (T_1).
Short time overload	ΔR is within $\pm(1\%R+0.05\Omega)$ No evidence of mechanical damage.	2.5 times of rated voltage, 5 seconds.
Pulse overload	ΔR is within $\pm(1\%R+0.05\Omega)$.	2.5 times of rated voltage, 10000 cyc.(1s ON, 25s OFF)
Temperature test	TF $\pm 2\square$	The test samples are to be placed in the Silicone Oil, which is then to be increased at a rate of 0.5 to $1\square$ per minute. A detecting current through the sample is not more than 10mA. The temperature at sample opens are to be recorded.
Insulation resistor	Test Voltage: 500VDC 2M Ω or More	It won't be broken down when apply 500VDC between the resistor leads and metallic foil placed around the resistor body for 1 minute.
	Test Voltage: 500VDC 0.2M Ω or More	It won't be broken down when apply 500VDC between the resistor leads for 1 minute after fusing off.
Dielectric Withstanding Voltage	Test Voltage: 1.5kVAC No breakdown	It won't be broken down when apply 1500VAC between the resistor leads and metallic foil placed around the resistor body for 1 minute. And the leakage current should be less than 2mA.
	Test Voltage: 0.5kVAC No breakdown	It won't be broken down when apply 500VAC between the resistor leads for 1 minute after fusing off. And the leakage current should be less than 2mA.
Solderability	Over 90% tin covered.	Immerge into the $260\pm 5^\circ\text{C}$ tin stove for (5 ± 0.5) seconds.
Resistance to soldering heat	Within $(\pm 1\%+0.05\Omega)$	Immerge into the $260\pm 5^\circ\text{C}$ tin stove for (5 ± 0.5) seconds. at a location 10 mm from the body



Thermo Fuse Resistor (TRXF)

Performance Test

Item	Performance	Test methods (Conform to JIS C 5202)
Terminal Strength	No evidence of mechanical damage	Tensile strength: 10N, for 10 Seconds Each lead shall be bent through 90° at a location 10 mm from the body and then twisted through 180° for 5 cycles.
Temperature cycle	ΔR is within $\pm(1\%R+0.05\Omega)$ No evidence of mechanical damage	Low temperature side: -55°C/30min, Room temp.: 10 to 15min High temperature side: +85°C/30min, Room temp.: 10 to 15min 5 cycles
Load life in humidity	$\square R \leq \pm(5\%R+0.05\Omega)$. $\square R$ is within $\pm(5\%R+0.05\Omega)$	40±2°C, 90 to 95%RH, 1000h Rated voltage (90 min ON, 30 min OFF)
Load life	$\square R \leq \pm(5\%R+0.05\Omega)$.	70±3°C, 1000h, Rated voltage (90 min ON, 30 min OFF)
Incombustibility	No evidence of flame.	16 times of rated wattage for 5 min.
Surge	No breakdown, no arc.	Five surges shall be positive polarity, and Five surges shall be negative polarity. The surges are to be conducted in succession with 1min period between each surge.
Limited Short Circuit Test	The resistor opens the circuit without ignition of the cotton. There is no damage to the leads or terminals of the component.	The fusing resistor are to be mounted in their holders where applicable and subjected to a limited short circuit from a 120-V, 60-Hz branch circuit. The circuit is to limit the current to 1000 A rms measured without the resistor in the circuit. The power factor of the circuit is to be 0.9– 1.0.

Note: Limited short circuit test is comply with UL1412 section18. The test conditions can be modified if the customer requires.