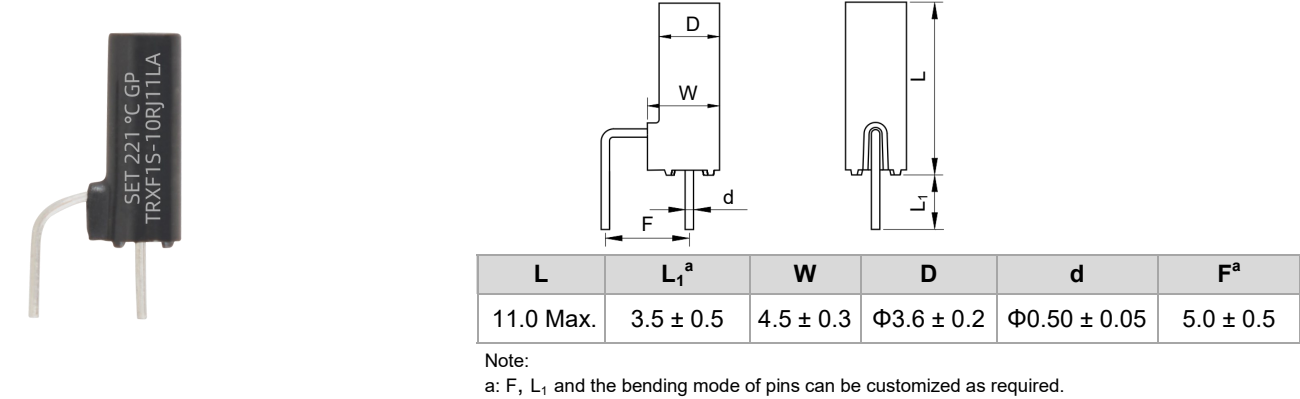
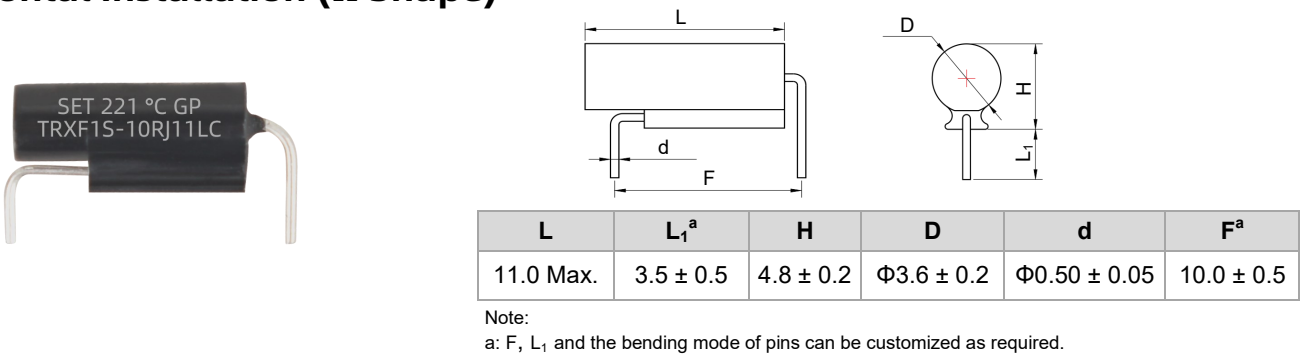


Vertical Installation (Round)

Dimensions (mm)



Horizontal Installation (Ω Shape)



Description

Thermal-Link & Fusing Resistor (TRXF) is a unique type of power resistor, with over temp. and over current protections.

The Alloy Thermal-Link (ATCO) is placed through the core of Fusible Wirewound Resistor (RXF) and in series with RXF.

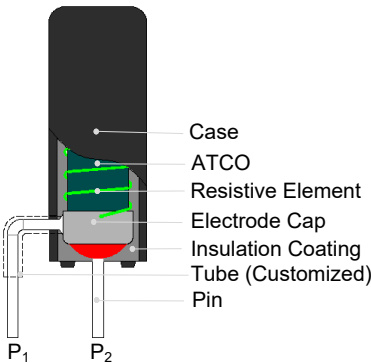
Features

- Patented Product
- Over Temp. Protection
- Surge Protection
- Inrush Current Protection
- Small Fault Current Protection
- Short Circuit Protection
- RoHS & REACH Compliant

Applications

- Switch Mode Power Supply (SMPS)
- Adapters
- LED Drivers
- Small Power Home Appliances

Structure Diagram



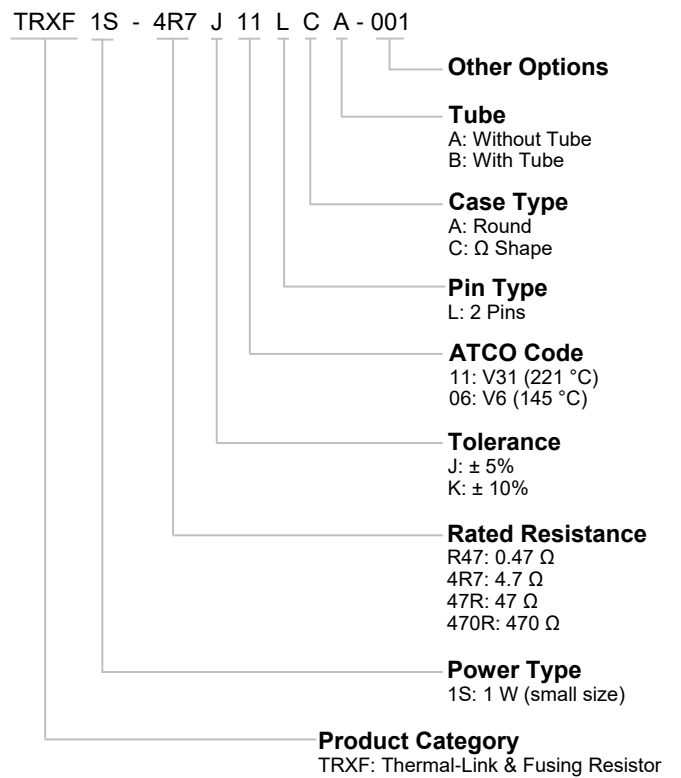
Agency Approvals

Agency	Standards	File No.	Resistance Range
 E324712	UL1412	E324712	1.0 Ω ~ 600 Ω
 V019518	SJ 2865	CQC15001126562	1.0 Ω ~ 600 Ω

Technical Parameter

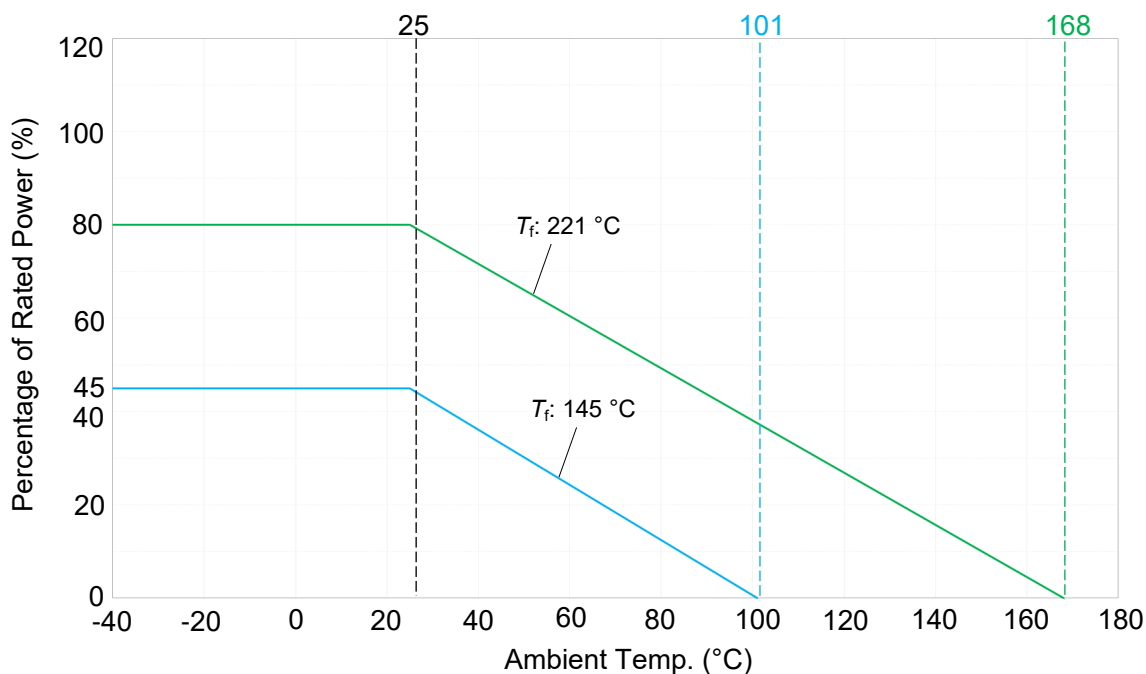
Item	Parameter
Power Type (P)	1 W
Rated Resistance (R)	1 Ω ~ 600 Ω
Resistance Tolerance	5% (E24) , 10% (E12)
Derating Factor (f)	See Rated Power Derating Curve
Actual Power (P ₀)	$P_0 = P \times f$
Rated Current (I _N)	$I_N = \sqrt{P_0 / R}$
Rated Voltage (U _N)	$U_N = \sqrt{P_0 \times R}$
Fusing Time (less than 60 seconds)	5 × P (T _f = 221 °C)
	3 × P (T _f = 145 °C)
Fusing Temp.	216 °C to 221 °C (T _f = 221 °C)
	138 °C to 142 °C (T _f = 145 °C)
Surge	2.0 kV (R > 10 Ω)
	1.0 kV (R ≤ 10 Ω)

Part Numbering System



Rated Power Derating Curve (For Reference Only)

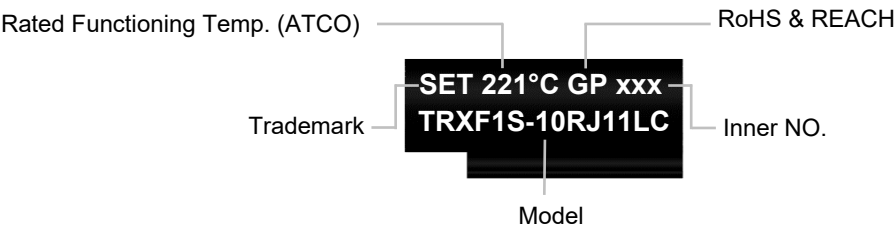
When the ambient temp. exceeds 25 °C, the rated power value declines as the following curve.



Glossary

Item	Description
RXF	Fusible Wirewound Resistor A power resistor which is made by winding a resistive element on a ceramic core, and the core is coated by insulation coating. It intends to interrupt a current flow at a predetermined time when the current exceeds a predetermined value.
ATCO	Alloy Thermal-Link Alloy Type Thermal-Link, alloy is the thermal element. Thermal-Link is a non-resettable device incorporating a THERMAL ELEMENT which will open a circuit once only when exposed for a sufficient length of time to a temp. in excess of that for which it has been designed.
R	Rated Resistance Resistance value for which the resistor has been designed, and which is generally used for denomination of the resistor.
P ₀	The Max. power of TRXF can be used within the allowable operating temp. range.
I _N	Rated Current $I_N = \sqrt{P_0 / R}$
U _N	Rated Voltage The d.c. or a.c. r.m.s. voltage calculated from the square root of the product of the rated resistance and the rated dissipation.
Fusing Temp.	Fusing Temp. The temp. of the TRXF which causes it to change its state of conductivity is measured with silicone oil bath in which the temp. is increased at the rate of 0.3 °C/min to 0.5 °C/min, with a detection current up to 10 mA as the only load.
T _f	Rated Functioning Temp. The temp. of the Thermal-Link which causes it to change its state of conductivity with a detection current up to 10 mA as the only load.
TCR	Temp. Coefficient of Resistance Relative variation of resistance between two given temp. divided by the difference in the temp. producing it.

Marking



TRXF

Thermal-Link & Fusing Resistor

TRXF1S Series

Specifications

Series	Power Type	Derating Factor (25 °C)	Rated Resistance	Resistance Tolerance	Rated Functioning Temp. (T _f)	Fusing Temp.	Agency Approvals		Environmental Status	
							 E324712	 V019518	RoHS	REACH
TRXF1S	1	80	1.0 ~ 600	± 5, ± 10	221	216 ~ 221	●	●	●	●
		45			145	138 ~ 142	●	●	●	●

Resistance Selection Table (According to IEC60063-2015, blue font is SETsafe | SETfuse common resistance).

Rated Resistance	Code	Rated Resistance	Code	Rated Resistance	Code	Rated Resistance	Code
(Ω)		(Ω)		(Ω)		(Ω)	
0.10	R10	1.0	1R0	10	10R	100	100R
0.11	R11	1.1	1R1	11	11R	110	110R
0.12	R12	1.2	1R2	12	12R	120	120R
0.13	R13	1.3	1R3	13	13R	130	130R
0.15	R15	1.5	1R5	15	15R	150	150R
0.16	R16	1.6	1R6	16	16R	160	160R
0.18	R18	1.8	1R8	18	18R	180	180R
0.20	R20	2.0	2R0	20	20R	200	200R
0.22	R22	2.2	2R2	22	22R	220	220R
0.24	R24	2.4	2R4	24	24R	240	240R
0.27	R27	2.7	2R7	27	27R	270	270R
0.30	R30	3.0	3R0	30	30R	300	300R
0.33	R33	3.3	3R3	33	33R	330	330R
0.36	R36	3.6	3R6	36	36R	360	360R
0.39	R39	3.9	3R9	39	39R	390	390R
0.43	R43	4.3	4R3	43	43R	430	430R
0.47	R47	4.7	4R7	47	47R	470	470R
0.51	R51	5.1	5R1	51	51R	510	510R
0.56	R56	5.6	5R6	56	56R	560	560R
0.62	R62	6.2	6R2	62	62R	N/A	N/A
0.68	R68	6.8	6R8	68	68R	N/A	N/A
0.75	R75	7.5	7R5	75	75R	N/A	N/A
0.82	R82	8.2	8R2	82	82R	N/A	N/A
0.91	R91	9.1	9R1	91	91R	N/A	N/A