



Circuit Protection for Lighting Industry

SETsafe | SETfuse Solution

Over Temperature Protection

Over Voltage Protection

Over Current Protection

2023

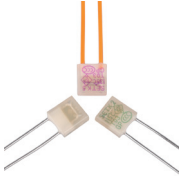
SETsafe | *SETfuse*

Providing a Total Solution for High Standard Safety Circuit Protection

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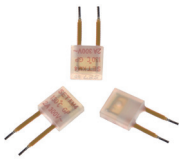
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LED Tube Pin Ignition Overheating Protection Solution



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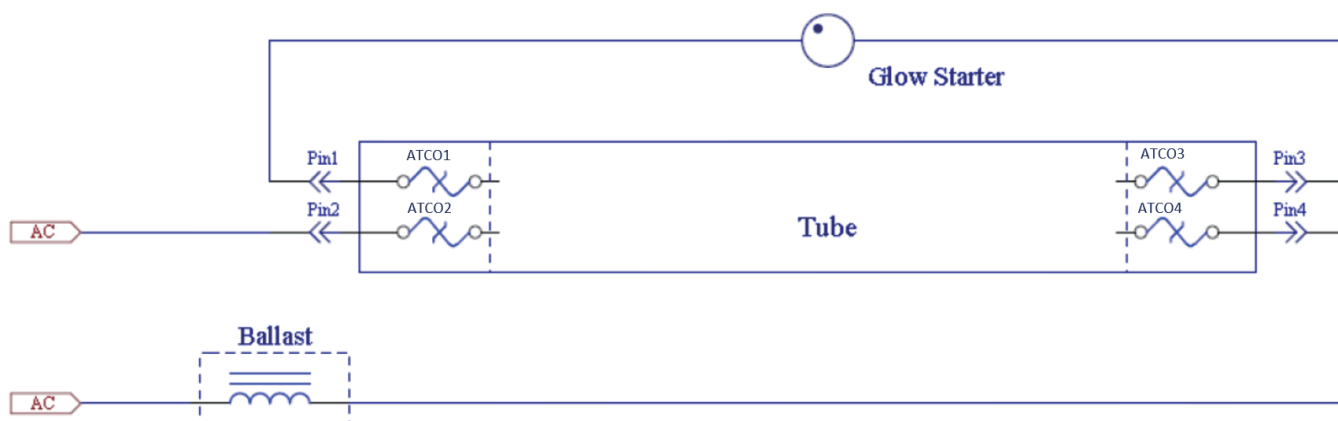
LED Tube Pin Ignition Overheating Protection Solution

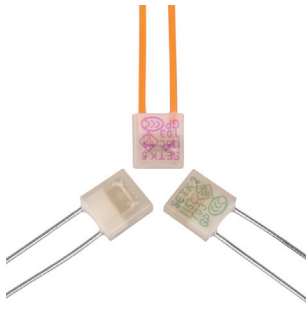
For easy replacement, lighting manufacturers have designed LED tubes that directly replace fluorescent with rectifier circuits. For example, when the contact of the lamp holder is oxidized or the pin is not in good contact, the rectifier will be in a continuous on-off state. At this time, the rectifier will induce continuous high voltage to cause continuous arcing and heating between the lamp tube pins and the base, which may cause the plastic base and other accessories to melt, catch fire and other hazards.

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Product: Thermal-Link (ATCO)-Alloy Type

Principle: An ATCO can be connected in series between the pin and the driver circuit. When the pin has abnormal arcing and heat, the heat is transferred to the ATCO. When the alloy in the ATCO body reaches its fusing temperature, the circuit is cut off to prevent high temperature fire.





K series

T_f : (76 ~ 221) °C

I_r : 2 A / 250 VAC, 4 A / 60 VDC

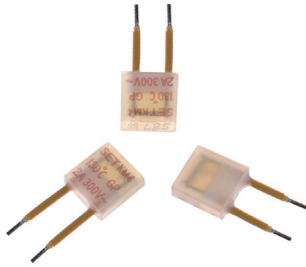
U_r : 250 VAC, 60 VDC

Body Dimensions: L=5.8 mm, W=5.8 mm, T=2.3 mm

Applications: Lighting / Motor / Transformer / Battery / Diffuser /
Home Appliances / Switching Power Supply / Electric
Blanket / Electric Heating Apparatus

Click to learn more

<https://setsafe.com/Product/Over-Temperature-Protection/Thermal-Link-ATCO-Alloy-Type/K-series.html>



KM series

T_f : (125 ~ 150) °C

I_r : 2 A

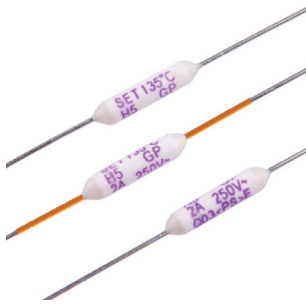
U_r : 300 / 320 VAC

Body Dimensions: L=5.8 mm, W=5.8 mm, T=2.3 mm

Applications: Lighting / Motor / Transformer / Switching Power Supply /
Battery / Home Appliances

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H series

T_f : (76 ~ 221) °C

I_r : 2 A

U_r : 125 / 250 VAC, 50 / 60 VDC

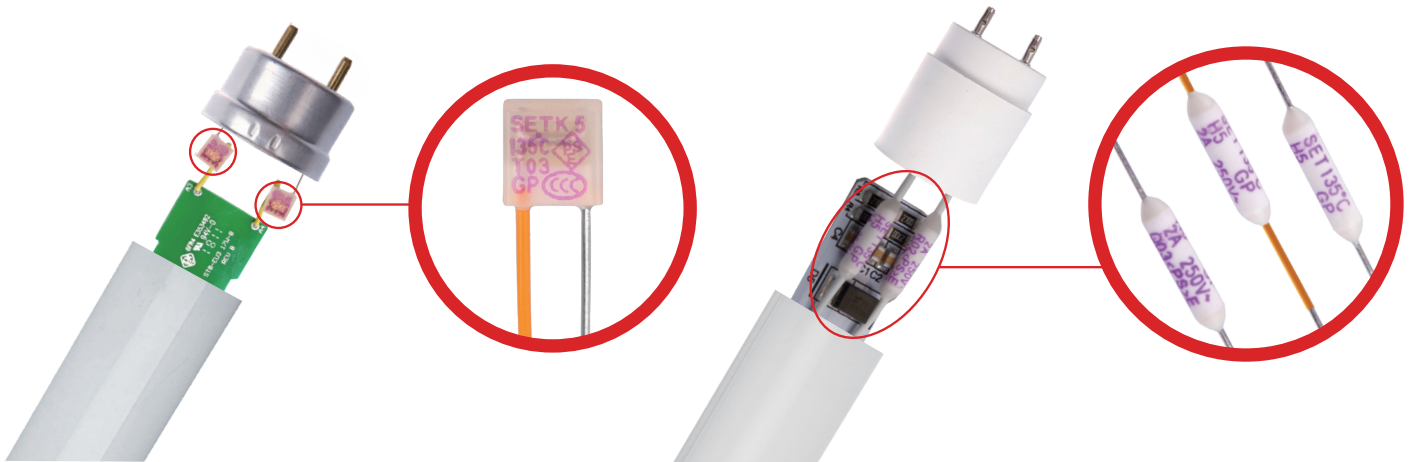
Body Dimensions: L=9.0 mm, ϕ =2.5 mm

Applications: Lighting / Motor / Transformer / Home Appliances /
Switching Power Supply / Diffuser / Electric Blanket

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<https://setsafe.com/Product/Over-Temperature-Protection/Thermal-Link-ATCO-Alloy-Type/H-series.html>

Real Picture of the Solution



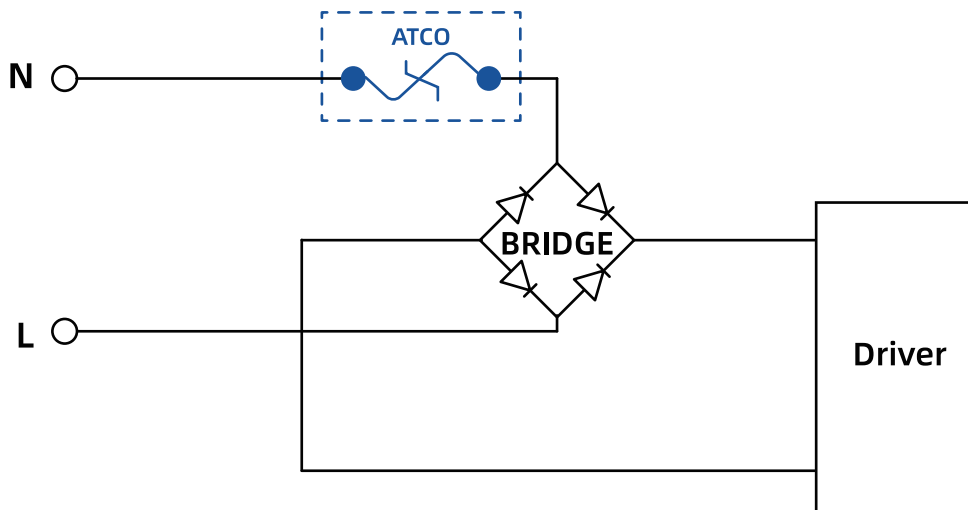
LED Lamp Driver Rectifier Bridge Stack Overheating Protection

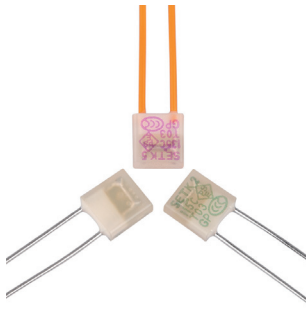
When the rectifier bridge stack of the LED driver board ages and a circuit fault occurs, the leakage current increases, and the rectifier bridge stack generates high temperature due to heat generation. At high temperature, the leakage current further increases, and finally goes to thermal run-away, which may cause surrounding components or plastic lamp holders and parts melting, fire and other hazards.

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Product: Thermal-Link (ATCO)-Alloy Type

Principle: Use ATCO fit to protect the bridge rectifier stack. When the rectifier bridge stack has problems such as increased leakage current due to aging, circuit failure, etc., the rectifier bridge stack generates heat and generates high temperature. When the heat transfer causes the alloy in the ATCO body to heat up to its fusing temperature, the circuit is cut off to prevent high temperature fire.





K series

T_f : (76 ~ 221) °C

I_r : 2 A / 250 VAC, 4 A / 60 VDC

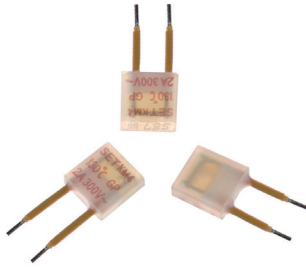
U_r : 250 VAC, 60 VDC

Body Dimensions: L=5.8 mm, W=5.8 mm, T=2.3 mm

Applications: Lighting / Motor / Transformer / Battery / Diffuser /
Home Appliances / Switching Power Supply / Electric
Blanket / Electric Heating Apparatus

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<https://setsafe.com/Product/Over-Temperature-Protection/Thermal-Link-ATCO-Alloy-Type/K-series.html>



KM series

T_f : (125 ~ 150) °C

I_r : 2 A

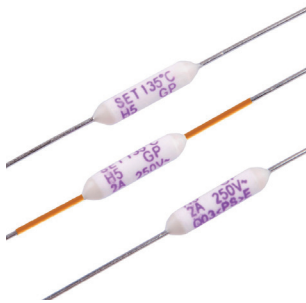
U_r : 300 / 320 VAC

Body Dimensions: L=5.8 mm, W=5.8 mm, T=2.3 mm

Applications: Lighting / Motor / Transformer / Switching Power Supply /
Battery / Home Appliances

Click to learn more

<https://setsafe.com/Product/Over-Temperature-Protection/Thermal-Link-ATCO-Alloy-Type/KM-series.html>



H series

T_f : (76 ~ 221) °C

I_r : 2 A

U_r : 125 / 250 VAC, 50 / 60 VDC

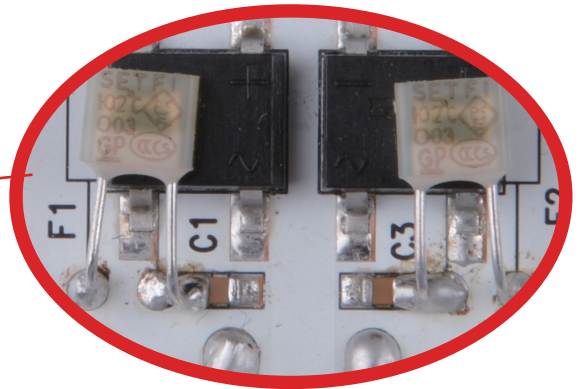
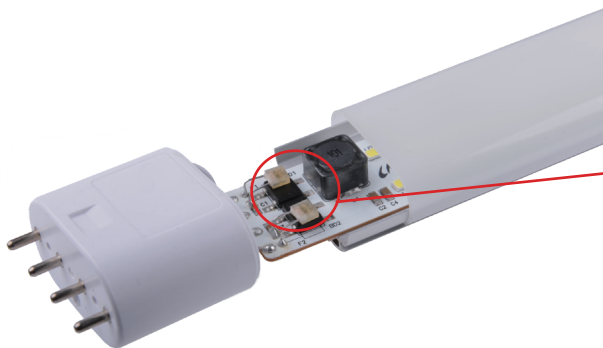
Body Dimensions: L=9.0 mm, ϕ =2.5 mm

Applications: Lighting / Motor / Transformer / Home Appliances /
Switching Power Supply / Diffuser / Electric Blanket

Click to learn more

<https://setsafe.com/Product/Over-Temperature-Protection/Thermal-Link-ATCO-Alloy-Type/H-series.html>

Real Picture of the Solution



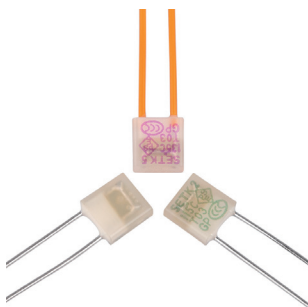
Overheating Protection for Components on the LED Lamp Driver Board

LED lamps (downlights, corn lamps, spotlight cups, bulb lamps, etc.) components on the driver board are aging or circuit failures, such as IC short circuit, etc., may cause thermal runaway, and excessive temperature rise may cause damage to surrounding components or plastic materials lamp holders and other accessories may melt, catch fire and other hazards.

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Product: Thermal-Link (ATCO)-Alloy Type

Principle: The driver board is attached to the ATCO for potential overheating components for overheat protection. When the heat transfer causes the alloy in the ATCO body to heat up to its fusing temperature, the circuit is cut off to prevent high temperature fire.



K series

T_f : (76 ~ 221) °C

I_r : 2 A / 250 VAC, 4 A / 60 VDC

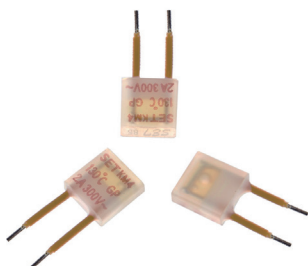
U_r : 250 VAC, 60 VDC

Body Dimensions: L=5.8 mm, W=5.8 mm, T=2.3 mm

Applications: Lighting / Motor / Transformer / Battery / Diffuser /
Home Appliances / Switching Power Supply / Electric
Blanket / Electric Heating Apparatus

Click to learn more

<https://setsafe.com/Product/Over-Temperature-Protection/Thermal-Link-ATCO-Alloy-Type/K-series.html>



KM series

T_f : (125 ~ 150) °C

I_r : 2 A

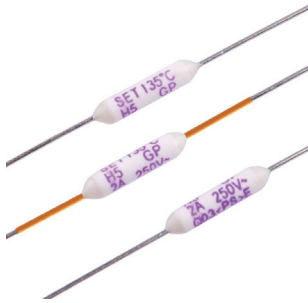
U_r : 300 / 320 VAC

Body Dimensions: L=5.8 mm, W=5.8 mm, T=2.3 mm

Applications: Lighting / Motor / Transformer / Switching Power Supply /
Battery / Home Appliances

Click to learn more

<https://setsafe.com/Product/Over-Temperature-Protection/Thermal-Link-ATCO-Alloy-Type/KM-series.html>



H series

T_f : (76 ~ 221) °C

I_r : 2 A

U_r : 125 / 250 VAC, 50 / 60 VDC

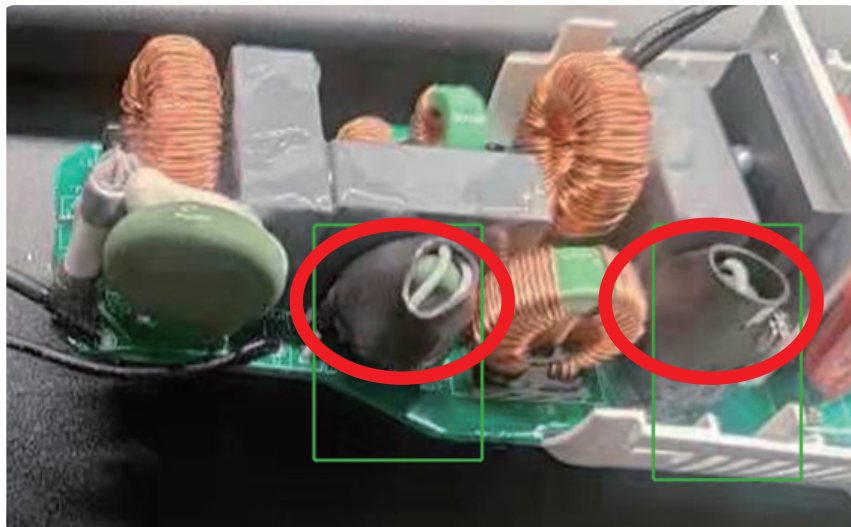
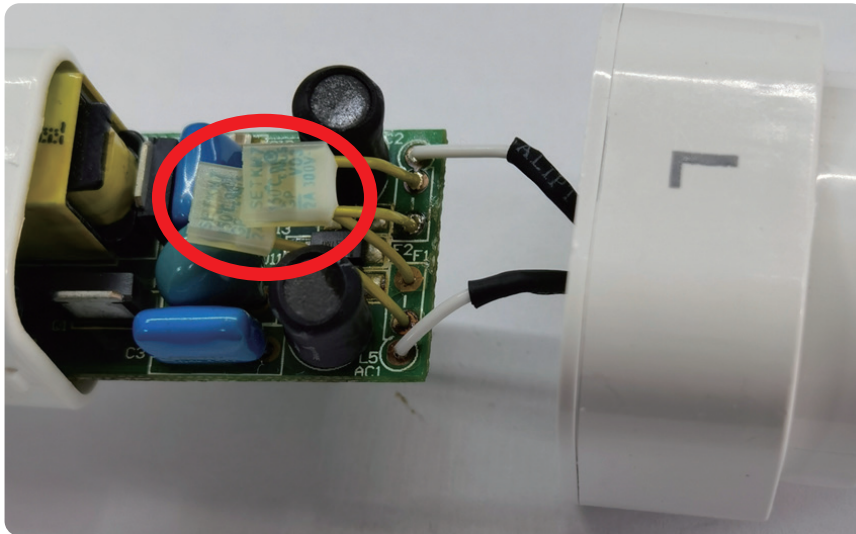
Body Dimensions: L=9.0 mm, ϕ =2.5 mm

Applications: Lighting / Motor / Transformer / HomeAppliances /
Switching Power Supply / Diffuser / Electric Blanket

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<https://setsafe.com/Product/Over-Temperature-Protection/Thermal-Link-ATCO-Alloy-Type/H-series.html>

Real Picture of the Solution



Surge Protection for Outdoor LED Drivers

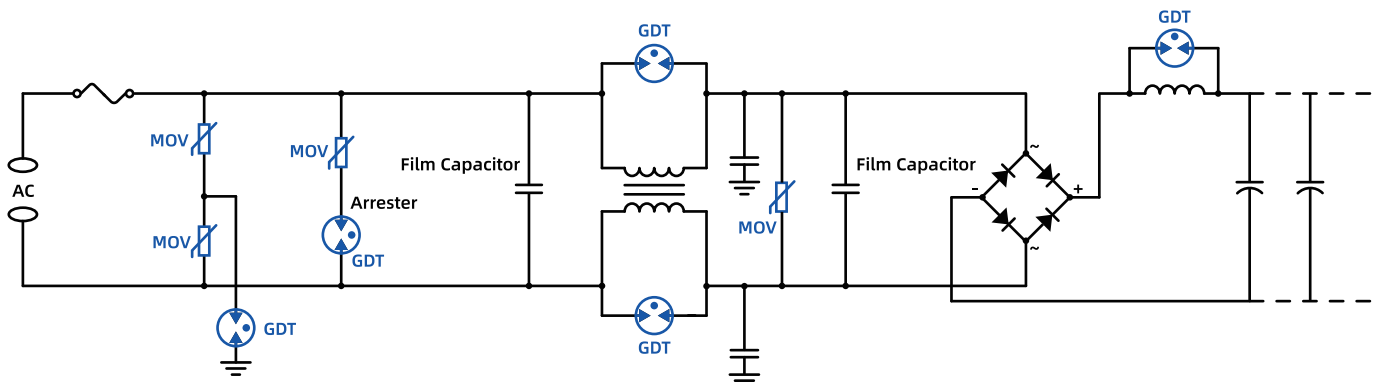
With the development of global energy saving and emission reduction trends, outdoor LED street lamps are gradually increasing, but outdoor LED lighting is exposed to complex environments, and the lighting system is easily damaged by surge current or transient overvoltage, which will further damage the downstream devices and components of the drive circuit. Personal safety poses hidden dangers. Therefore, the surge or overvoltage protection design of the LED drive power supply should be fully considered, so as to improve the reliability of the circuit and reduce the incidence of failure. Generally include LED street lights, tunnel lights, urban lights, outdoor advertising lights, etc.

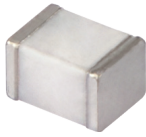
SETsafe | SETfuse Solution

Product: Gas Discharge Tube (GDT)

Principle: The street lamp drive power supply has strict lightning surge test requirements (differential mode, common mode), respectively between the L-N two lines and the L / N-PE two lines to absorb the abnormal surges in the differential mode and common mode, and protect the subsequent stage Circuit; In addition to surge protection, the input of the power supply must also consider the insulation withstand voltage (Hipot) requirements to protect personal safety.

When the lightning surge requirement is high, the residual voltage of the front stage may be high. If the withstand voltage of the rectifier bridge or field effect tube of the rear stage is low, the rectifier bridge may fail, and the differential mode two-pole protection can be used, that is, after the rectifier bridge Add a piezoresistor or a common mode inductor in parallel with the discharge tube to further suppress the impact of overvoltage.





SX series

Type: Surge Arrester

V_s : (90 ~ 600) V

I_n (8 / 20 μ s): 1 kA / 2 kA

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<https://setsafe.com/Product/Over-Voltage-Protection/Gas-Discharge-Tube-GDT/SX-series.html>



SF series

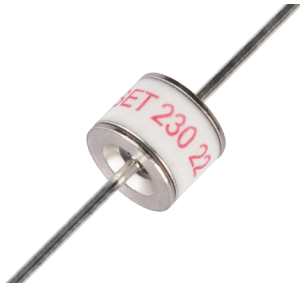
Type: Surge Arrester

V_s : (75 ~ 3600) V

I_n (8 / 20 μ s): 3 kA / 5 kA / 10 kA

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<https://setsafe.com/Product/Over-Voltage-Protection/Gas-Discharge-Tube-GDT/SF-series.html>



SE series

Type: Surge Arrester

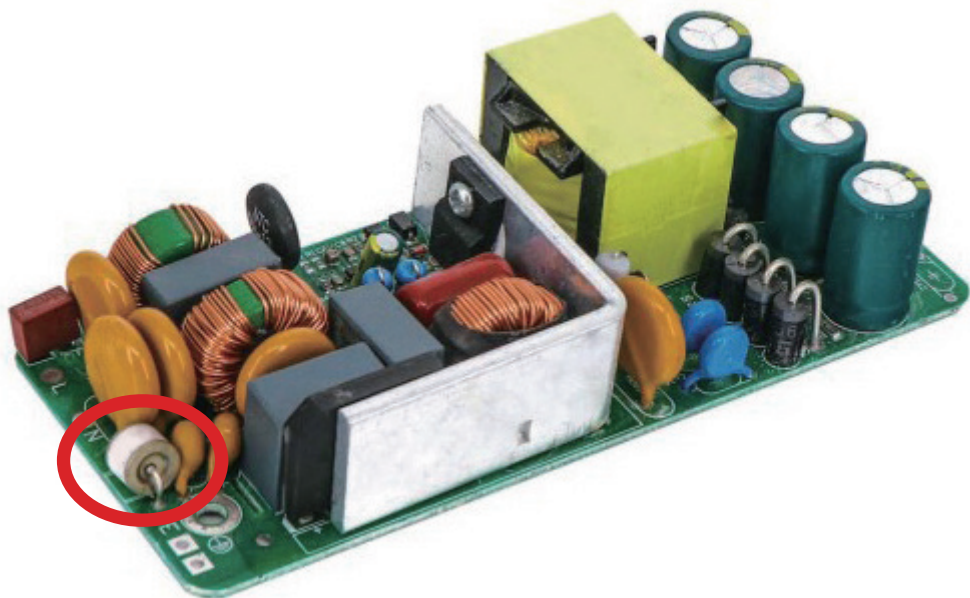
V_s : (75 ~ 3600) V

I_n (8 / 20 μ s): 5 kA / 10 kA / 20 kA

Click to learn more

<https://setsafe.com/Product/Over-Voltage-Protection/Gas-Discharge-Tube-GDT/SE-series.html>

Real Picture of the Solution



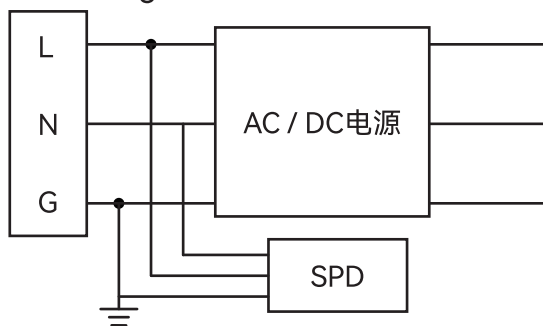
Lightning & Surge Protection for Outdoor Lighting System LED Street Lighting

Due to exposure to the outdoor environment, LED lighting systems are faced with hazards such as power module failure, LED component damage, and lighting efficiency reduction caused by lightning surges. Therefore, in order to ensure the life and reliability of LED lighting and avoid unnecessary maintenance, comprehensive and effective surge protection should be adopted.

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Product: SPD (Outdoor Lighting)

Principle: Utilizing the nonlinear characteristics of the varistor and the gas ionization discharge technology of the gas discharge tube, it can effectively clamp the external surge voltage at a safe level, and the built-in thermal protection device can withstand continuous overvoltage and the internal varistor Safe to fail when degraded.



SD05K series

U_c : 150 / 320 / 420 VAC

I_n (8 / 20 μ s): 5 kA

I_{max} (8 / 20 μ s): 10 kA



Click to learn more

<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Outdoor-Lighting/SD05K-Series.html>

SD05C series

U_c : (150 ~ 550) VAC

I_n (8 / 20 μ s): 5 kA

I_{max} (8 / 20 μ s): 10 kA



Click to learn more

<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Outdoor-Lighting/SD05C-Series.html>



SD10C series

U_c : L - N: (150 ~ 550) VAC

I_n (8 / 20 μ s): 10 kA

I_{max} (8 / 20 μ s): 15 / 25 kA

Click to learn more

<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Outdoor-Lighting/SD10C-Series.html>



SD10K series

U_c : (300 ~ 385) VAC

I_n (8 / 20 μ s): 10 kA

I_{max} (8 / 20 μ s): 20 kA

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<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Outdoor-Lighting/SD10K-Series.html>



SD10C120/240

U_c : 150 / 300 VAC

I_n (8 / 20 μ s): 10 kA

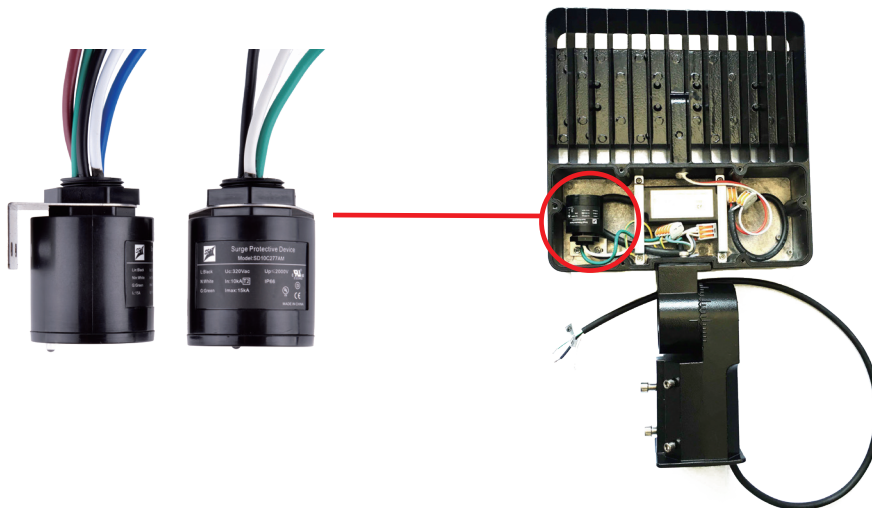
I_{max} (8 / 20 μ s): 15 / 25 kA

· UL 1449 Type 1 SPD

Click to learn more

<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Outdoor-Lighting/SD10C120/240-Series.html>

Real Picture of the Solution



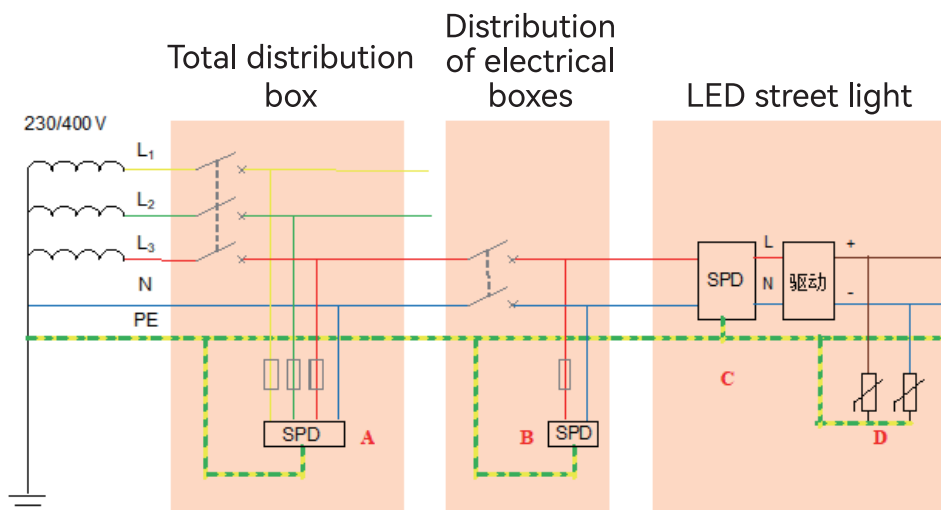
Lightning & Surge Protection for Outdoor Lighting Distribution System

In order to prevent damage to equipment on the line caused by lightning intrusion, multi-level SPDs are required to form a coordinated protection to ensure the safe operation of back-end equipment. Configure the first-level SPD at the main distribution box, configure the second-level SPD at the distribution box (single-phase), and configure compact LED surge protectors in the lamps. The whole system adopts multi-level SPD coordination protection to fully guarantee the safe operation of LED street lights.

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Product: SPD (Low-voltage Power Systems)

Principle: Utilizing the nonlinear characteristics of the varistor and the gas ionization discharge technology of the gas discharge tube, it can effectively clamp the external surge voltage at a safe level, and the built-in thermal protection device can withstand continuous overvoltage and the internal varistor Safe to fail when degraded.



SD25TxxxA404 series

U_c : L - N: (150 ~ 385) VAC

I_{imp} (10 / 350 μ s): (11.0 ~ 12.5) kA

I_n (8 / 20 μ s): 25 kA

I_{max} (8 / 20 μ s): 50 kA

Protection Mode: 3+1 (L — N, N — PE)

Click to learn more

<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Low-voltage-Power-Systems/SD25TxxxA404.html>



SD20/30R series 3+1

U_c : L — N: 385 VAC,

N — PE: 255 VAC

I_n (8 / 20 μ s): 20 / 30 kA

I_{max} (8 / 20 μ s): 40 / 60 kA

Protection Mode: 3+1 (L — N, N — PE)

Click to learn more

<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Low-voltage-Power-Systems/SD20/30R-series-3PN.html>



SD20/30R series 2+0

U_c : 385 VAC

I_n (8 / 20 μ s): 20 / 30 kA

I_{max} (8 / 20 μ s): 40 / 60 kA

Protection Mode: 2+0 (L / N — PE)

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<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Low-voltage-Power-Systems/SD20/30R-series-2P.html>



SD20/30R series 1+1

U_c : L — N: 385 VAC,

N — PE: 255 VAC

I_n (8 / 20 μ s): 20 / 30 kA

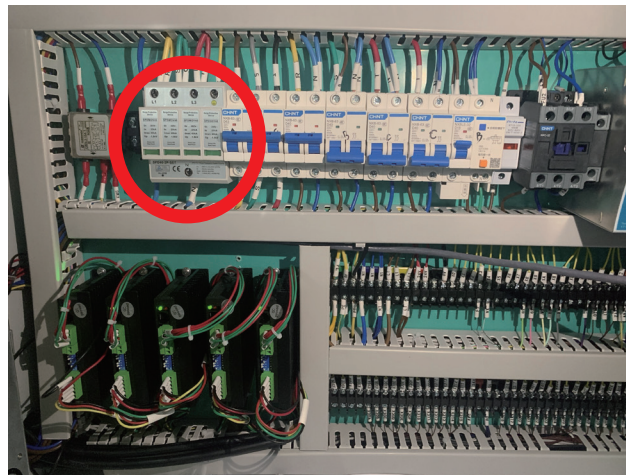
I_{max} (8 / 20 μ s): 40 / 60 kA

Protection Mode: 1+1 (L — N, N — PE)

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<https://setsafe.com/Product/Over-Voltage-Protection/SPD-Low-voltage-Power-Systems/SD20/30R-series-1PN.html>

Real Picture of the Solution



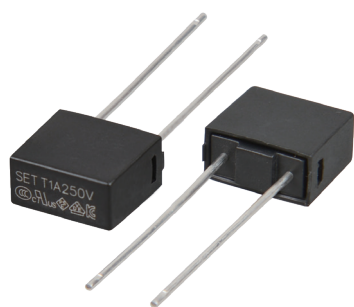
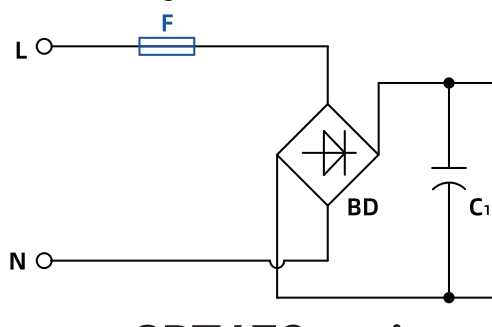
LED Driver Overload and Short Circuit Protection

1. When the bridge stack, capacitor, MOS tube or transformer of the switching power supply type LED driver power supply has obvious leakage current or short circuit, it may cause the LED driver to burn out, or even cause a fire.
2. When the leakage current occurs due to the breakdown of the capacitor of the RC step-down LED driver, the front-end resistor may be overloaded and remain in a high temperature state, which may cause the LED driver to burn out or even cause a fire.

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Product 1: Miniature Fuses

Principle: When the bridge stack, capacitor, MOS tube or transformer of the driving power supply has obvious leakage current or short circuit, the fuse of the front-end current fuse will be blown in time due to overload or short circuit, thereby disconnecting the circuit and avoiding the burning of the LED driver.



SPT478 series

Dimensions: W4 × H7 × L8 mm

Body Materials: Plastic

Characteristic: Time-Lag

I_n : (0.1 ~ 10) A

U_n : (125 ~ 400) VAC

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<https://setsafe.com/Product/Over-Current-Protection/Sub-miniature-Fuse-links-SFL/SPT478-series.html>



SCT1032 series

Dimensions: W3.2 × H3.2 × L10 mm

Body Materials: Ceramic

Characteristic: Time-Lag

I_n : (0.1 ~ 15) A

U_n : (125 ~ 350) VAC, (32 ~ 250) VDC

Click to learn more

<https://setsafe.com/Product/Over-Current-Protection/Surface-Mount-Fuse-links-SMFL/SCT1032-series.html>



SCT6125 series

Dimensions: W2.7 × H2.7 × L6.2 mm

Body Materials: Ceramic

Characteristic: Time-Lag

I_n : (0.2 ~ 12.5) A

U_n : (125 ~ 350) VAC, (32 ~ 125) VDC

Click to learn more

<https://setsafe.com/Product/Over-Current-Protection/Surface-Mount-Fuse-links-SMFL/SCT6125-series.html>

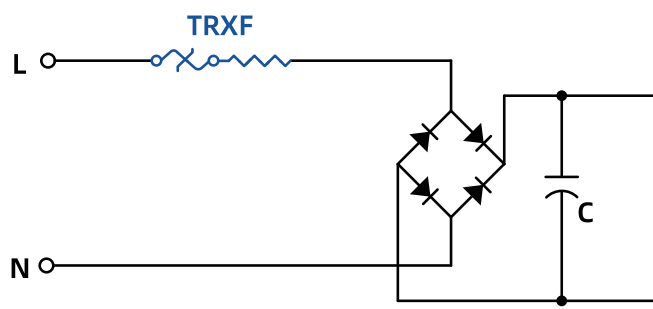
Real Picture of the Solution

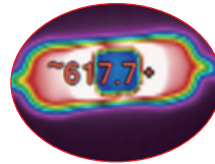
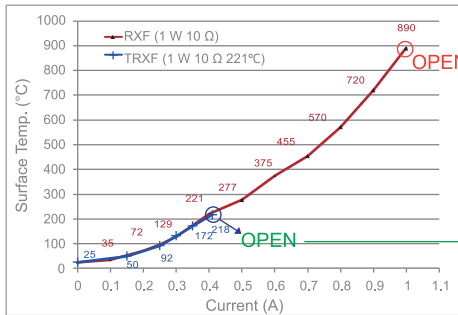


Product 2: Thermal-Link & Fusing Resistor (TRXF)

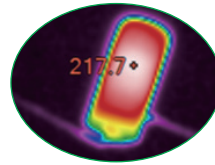
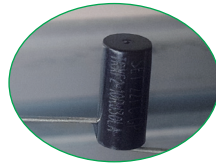
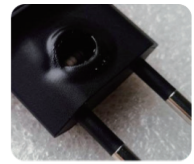
Principle: **TRXF function = over-current protection + short-circuit protection + over-temperature protection + power-on surge suppression + lightning surge suppression.**

SET unique thermal protection type fusing resistor (TRXF) is a fusing resistor with double protection of over-temperature and over-current. , and form a series structure with it. When the fuse resistor continues to generate heat due to overload and transfer the heat to the internal ATCO, when the temperature reaches the ATCO operating temperature, the ATCO will be fused, thereby cutting off the short circuit and avoiding the burning of the LED driver.





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Fire Risk



安全
Safe



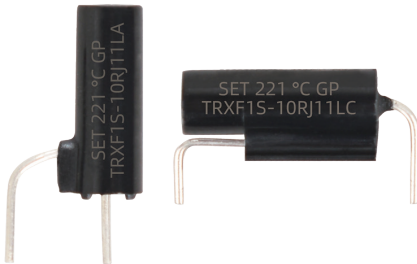
TRXF1S series

P : 1 W

R : (1 ~ 600) Ω

Resistance Tolerance: 5% / 10%

T_f : 145 / 221 °C



Click to learn more

<https://setsafe.com/Product/Over-Current-Protection/Thermal-Link-Fusing-Resistor-TRXF/TRXF1S-series.html>

TRXF1 (Axial Type) series

P : 1 W

R : (0.27 ~ 800) Ω

Resistance Tolerance: 5% / 10%

T_f : 221 °C



Click to learn more

<https://setsafe.com/Product/Over-Current-Protection/Thermal-Link-Fusing-Resistor-TRXF/TRXF1-Axial-Type-series.html>

TRXF2 (Axial Type) series

P : 2 W

R : (0.27 ~ 1000) Ω

Resistance Tolerance: 5% / 10%

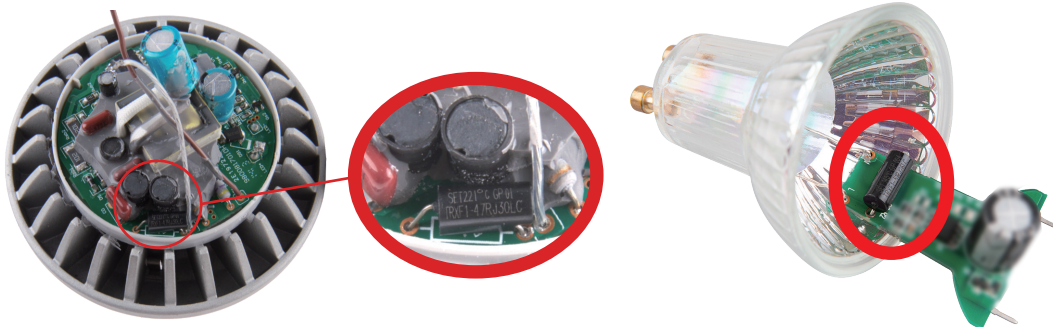
T_f : 221 °C



Click to learn more

<https://setsafe.com/Product/Over-Current-Protection/Thermal-Link-Fusing-Resistor-TRXF/TRXF2-Axial-Type-series.html>

Real Picture of the Solution



Short-circuit Protection of Thyristor for Dimming Lamps

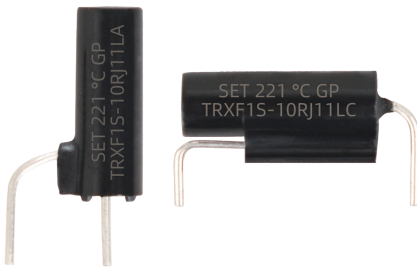
When the thyristor tube in the thyristor type dimming lamp is abnormal, the leakage current flows through the resistor in the trigger circuit, making the resistor in a continuous high temperature state, which may cause the dimming lamp to burn out, or even cause a fire.

SETsafe | SETfuse Solution

Product: Thermal-Link & Fusing Resistor (TRXF)

Principle: **TRXF function = over-current protection + short-circuit protection + over-temperature protection + power-on surge suppression + lightning surge suppression.**

SET unique thermal protection type fusing resistor (TRXF) is a fusing resistor with double protection of over-temperature and over-current. , and form a series structure with it. When the fuse resistor continues to generate heat due to overload and transfer the heat to the internal ATCO, when the temperature reaches the ATCO operating temperature, the ATCO will be fused, thereby cutting off the short circuit and avoiding the burning of the dimming lamp.



TRXF1S series

P : 1 W

R : (1 ~ 600) Ω

Resistance Tolerance: 5% / 10%

T_f : 145 / 221 $^{\circ}\text{C}$

Click to learn more

<https://setsafe.com/Product/Over-Current-Protection/Thermal-Link-Fusing-Resistor-TRXF/TRXF1S-series.html>



TRXF1 (Axial Type) series

P : 1 W

R : (0.27 ~ 800) Ω

Resistance Tolerance: 5% / 10%

T_f : 221 $^{\circ}\text{C}$

Click to learn more

<https://setsafe.com/Product/Over-Current-Protection/Thermal-Link-Fusing-Resistor-TRXF/TRXF1-Axial-Type-series.html>



TRXF2 (Axial Type) series

P : 2 W

R : (0.27 ~ 1000) Ω

Resistance Tolerance: 5% / 10%

T_f : 221 $^{\circ}\text{C}$

Click to learn more

<https://setsafe.com/Product/Over-Current-Protection/Thermal-Link-Fusing-Resistor-TRXF/TRXF2-Axial-Type-series.html>

Real Picture of the Solution



What can do for you

www.SETsafe.com

www.SETfuse.com

MISSION

PROVIDING A TOTAL SOLUTION FOR HIGH STANDARD SAFETY CIRCUIT PROTECTION.

SETsafe | SETfuse was established in 2000 in Xiamen, China. We have a presence in more than 40 countries and regions recognising our products. Some of the world's 500 fortune companies are our valuable customers. We have pioneered, innovated & developed several products exclusively. Products are compliance with CCC, UL, cUL, VDE, TUV, PSE, KC, IATF16949, ISO9001, ISO14001, ISO45001, GB/T29490 certificates. We are in one of the core participating teams for revising and setting several national & international standards in the field of Circuit Protection.

SPT478 series

SETsafe | SETfuse Key Markets: New Energy, Energy Storage, Telecom, Surge Protector, Power, Lighting, Home Appliances, Mobile Devices, Medical, etc.



SETsafe | SETfuse



PV System in SETsafe | SETfuse Industrial Park

SETsafe | SETfuse Benefits

20+

Over 20 years of DESIGNING, MANUFACTURING
AND SELLING of circuit protection components

40+

Sold to more than 40 countries and regions

Automatic

Automatic process production

500

A brand chosen by fortune 500 companies

Test Center

Safety, Accuracy, Equity, Efficiency

1000+

More than 1000 testing items

300+

More than 300 sets of specialized testing equipment

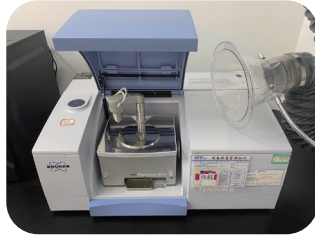
Standards

Has the testing capabilities of IEC international standards, ITU standards, EN European standards, UL standards, and national and industry standards

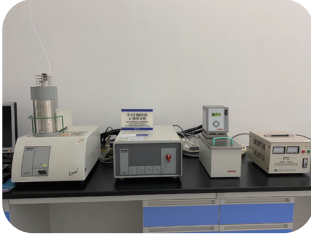
WTDP

The laboratory has obtained the qualification of UL under Witnessed Test Data Program(WTDP) and the accreditation qualification by TUV Rheinland

Some Test Equipment



The testing focus of the laboratory covers material analysis class, temperature test class, environmental test class, electrical test class, lightning current test class, with more than 1000 testing items.



The laboratory has the testing capabilities of IEC international standards, EN European standards, UL standards, and national and industry standards.

Test items include Marking test, Tensile test, Thrust test, Creepage distances and clearances, Dielectric strength, Insulation resistance, Holding temperature, Functioning temperature, Maximum temperature limit, Ageing, Varistor voltage, Leakage current, Voltage proof.....

WTDP



SETsafe | SETfuse Obtained Permanent Authorization:

- IEC 60127
- IEC 60539-1:2016
- IEC 60691:2015+A1
- EN 60691:2016+A1
- IEC 61051-1:2018
- EN IEC 61051-1:2018
- IEC 61051-2:1991+A1
- IEC 61051-2-2:1991
- IEC 62368-1:2020 Annex G.8
- EN IEC 62368-1:2020 Annex G.8
- EN 50539-11:2013+A1
- IEC 61643-11:2011
- EN 61643-11:2012+A11
- IEC 61643-21:2012
- EN 61643-21:2001+A1+A2
- IEC 61643-31:2018
- EN 61643-31:2018
- IEC 61643-311

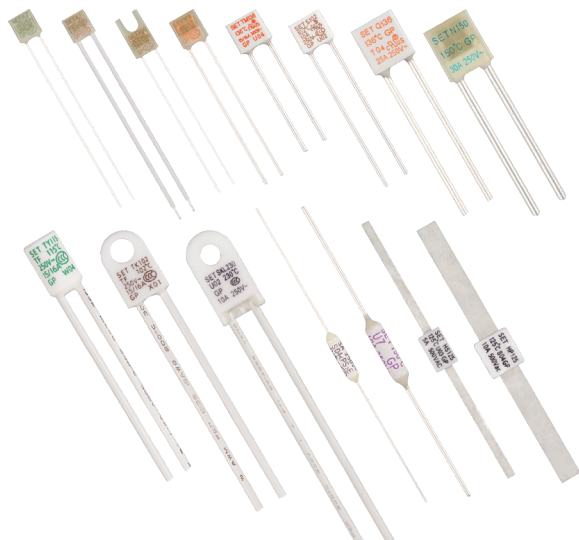


SETsafe | SETfuse Obtained Permanent Authorization:

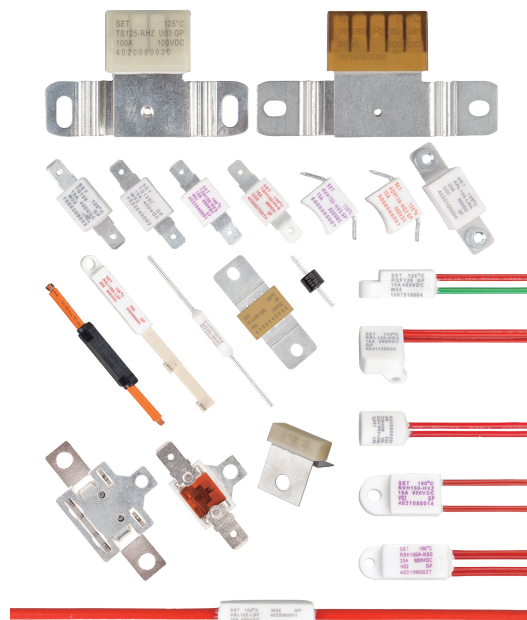
- UL 60691, CSA C22.2 NO.60691:19.
- UL 1449, EDITION 5, ISSUE DATE 01/08/2021 (Surge Protective Devices).
- UL 1434, EDITION 1, REVISION DATE 05/18/2020 (THERMISTOR-TYPE DEVICES).
- CSA Component Acceptance Service, T.I.L, Class No.9073-31, ISSUE DATE 07/09/1991.
- CSA C22.2 No.269.5, EDITION 2, ISSUE, DATE 09/2017 (Surge Protective Devices – Type 5 – Components).
- CSA C22.2 No.269.4, EDITION 2, ISSUE, DATE 03/2017 (Surge Protective Devices – Type 4 – Component Assemblies).

Over Temperature Protection

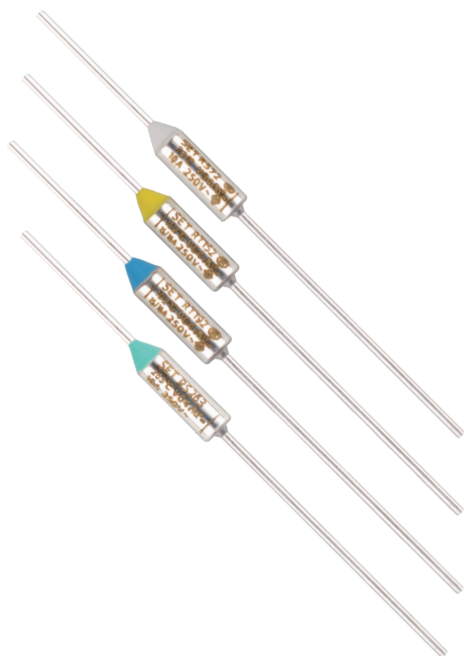
<https://setsafe.com/Product/Over-Temperature-Protection.html>



Thermal-Link
(ATCO) | Alloy
Type



Thermal-Link
(DC-ATCO) | DC Alloy
Type



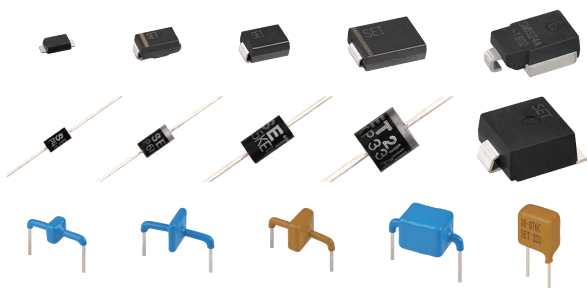
Thermal-Link
(OTCO) | Organic
Type



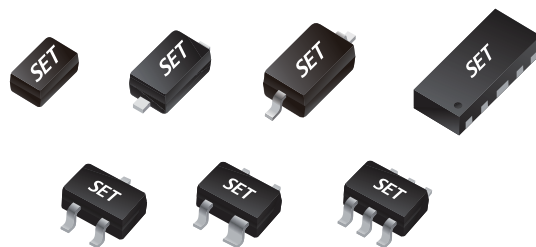
Thermal Protector
(TMS) | Resettable
Type

Over Voltage Protection

<https://setsafe.com/Product/Over-Voltage-Protection.html>



Transient Voltage Suppression Diodes
(TVS Diodes)



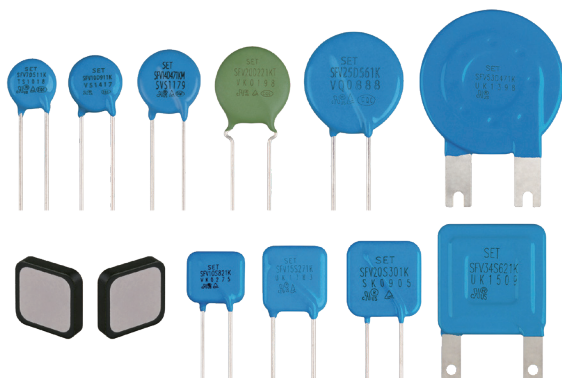
ESD TVS Diode Arrays
(ESD TVS)



Thyristor Surge Suppressor
(TSS)



Gas Discharge Tube
(GDT)



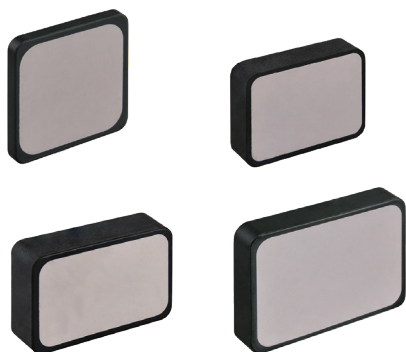
MOV | **Standard**
Metal Oxide Varistor & MOV Disk Type



MOV | **High Surge**
Metal Oxide Varistor Type

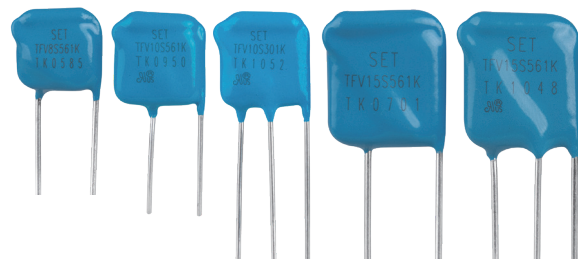
Over Voltage Protection

<https://setsafe.com/Product/Over-Voltage-Protection.html>

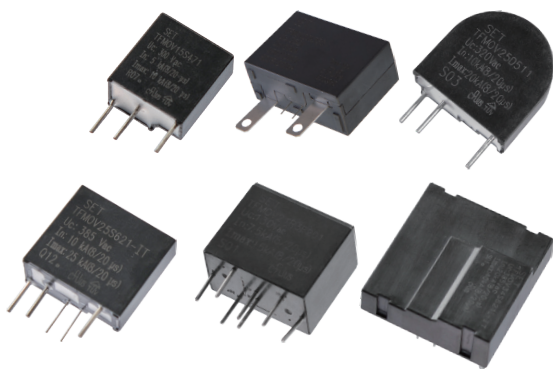


MOV Disk

T1
Lightning Protection Type



Thermal Fuse Varistor (TFV)



Thermal Fuse & MOV (TFMOV)



Thermally Protected Varistors (TFMOV)



Surge Protective Devices Module (SPD-M)



SPD (Low-voltage Power Systems)

Over Voltage Protection

<https://setsafe.com/Product/Over-Voltage-Protection.html>



SPD (PV System)



SPD (Outdoor Lighting)



SPD (Signaling Networks)

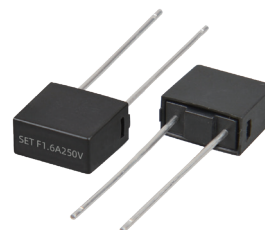
Over Current Protection

<https://setsafe.com/Product/Over-Current-Protection.html>



Mini Fuses

CFL
Cartridge Fuse-links



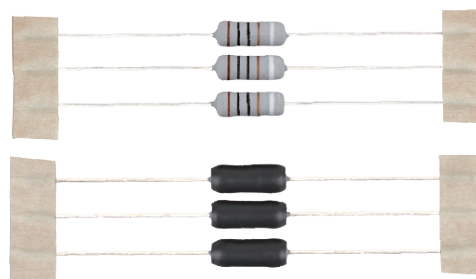
Mini Fuses

SFL
Sub-miniature Fuse-links

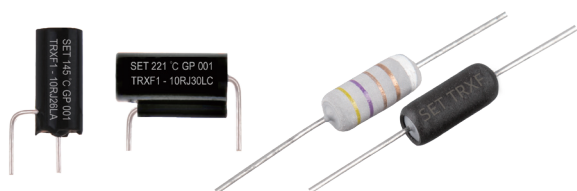


Mini Fuses

SMFL
Surface Mount Fuse-links



**Fusible Wire wound Resistor
(RXF)**



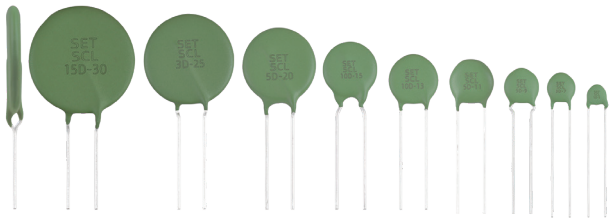
**Thermal-Link & Fusing Resistor
(TRXF)**



**Thermally Protected Resistor
(TPR)**

Over Current Protection

<https://setsafe.com/Product/Over-Current-Protection.html>



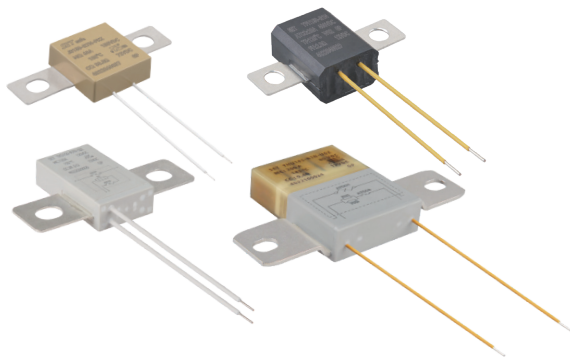
Inrush Current Limiting NTC Thermistor
(NTC)



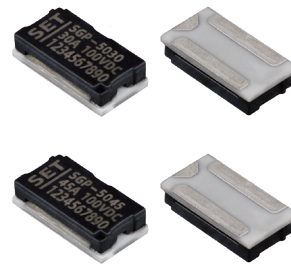
Low Voltage Fuses
(LV Fuses)

Active Protection

<https://setsafe.com/Product/Active-Protection.html>



idea Thermal-Link
(iTCO)



Thermal Break Protector
(TBP)

.END.

Providing a Total Solution for High Standard Safety Circuit Protection

Websites

Additional information can be found on
www.SETsafe.com
www.SETfuse.com

Products E-Catalogs

Explore the world of SETsafe | SETfuse with the electronics E-Catalogs
<https://www.setsafe.com/Catalog/mobile/index.html>

Products Category Links

Over Temperature Protection

<https://setsafe.com/Product/Over-Temperature-Protection.html>

Over Voltage Protection

<https://setsafe.com/Product/Over-Voltage-Protection.html>

Over Current Protection

<https://setsafe.com/Product/Over-Current-Protection.html>

Active Protection

<https://setsafe.com/Product/Active-Protection.html>

Product Catalog & Datasheet Download Link

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SET*safe* | **SET***fuse*

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