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Snubberless™ Triacs in TO-3PF packages for dusty and humid environments

T2650-6PF and T4050-6PF





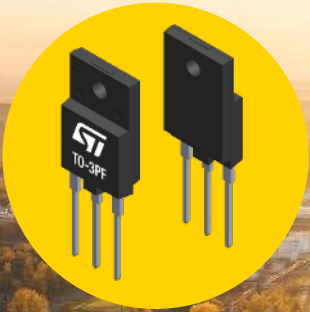
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“ Is it possible to design industrial AC switches for the harshest environments?



Triacs in TO-3PF plastic molded package

Increase AC switching robustness in dusty and humid environments



High thermal performance for up to 7.5 kW tank water heaters and up to 25 kW instant water heaters

4.4 mm creepage distance compatible with dusty or humid environments at Pollution Degree 3

UL-1557 recognized components at 2.5 kV level

T2650-6PF	T4050-6PF
600 V, 26 A Triac	600 V, 40 A Triac



Triacs for Dusty and Humid Environments (Pollution Degree 3 and 4)

Thanks to their creepage distance, TO-3PF Triacs work in the most **dusty and humid environments**.



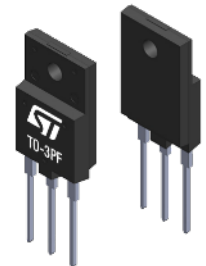
T2650-6PF and T4050-6PF offer a creepage distance of 4.4 mm. They are compatible with:

- 120V AC Application up to Pollution degree 4
- 240V AC applications up to Pollution degree 3



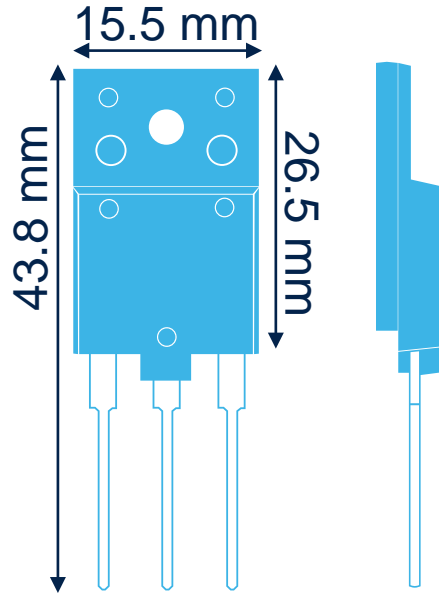
Standards IEC60664 and UL-840 pollution degree definitions:

- Degree 3 – Intermittent conductivity due to dust or moisture condensation.
- Degree 4 – Persistent conductivity due to dust, rain or snow.

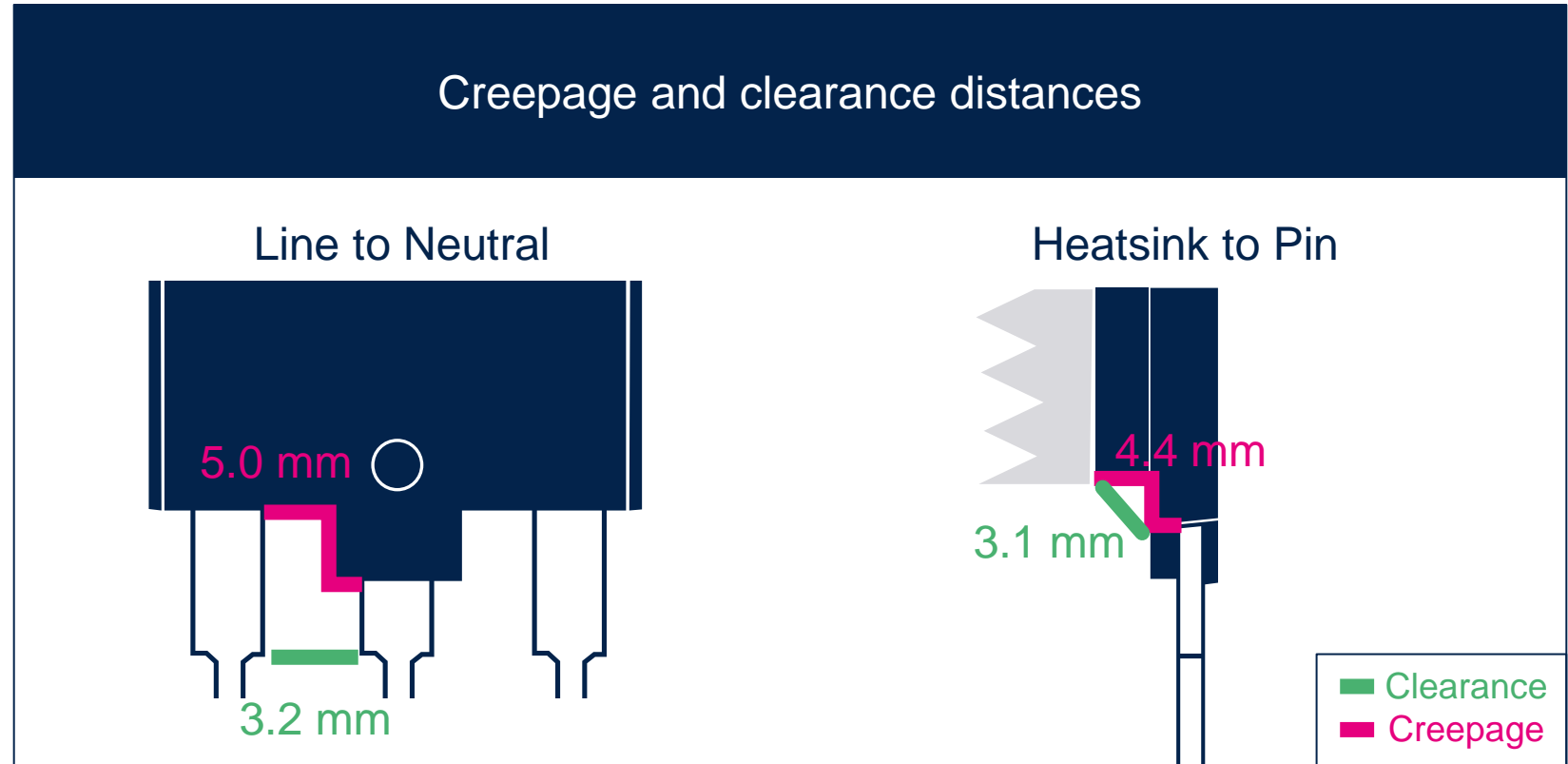




About the TO-3PF package



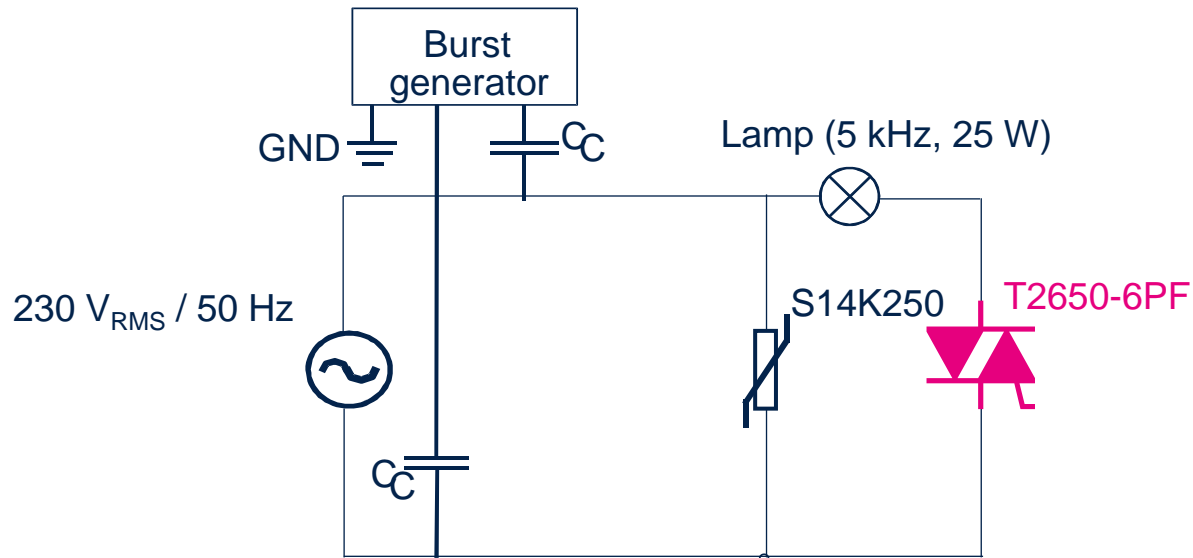
The TO-3PF provides an insulated tab (rated at 2.5kV rms). Recognized by UL, representative samples of this component have been evaluated by UL and meet applicable UL requirements for UL-1557 standard (File Ref. 81734).



Packing	Base Quantity	Packing Info
Tube	30	TN1173 on st.com

Snubberless™: EFT immunity Electrical fast transient burst test

Snubberless™ Triacs in TO-3PF can pass the IEC61000-4-4 without snubber



Triac reference	L + GND	L - GND	N + GND	N - GND
T2650-6PF T4050-6PF	> 6.6 kV	> 6.6 kV	> 6.6 kV	> 6.6 kV

Tested samples withstand at least ± 6.6 kV
without any RC network (25°C)



Developer tools and design resources



Portfolio & Datasheets

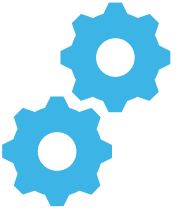
[Link to ST.com](#)

Phone apps

E-Design suite

Intelligent design tools

[Link to ST.com](#)



Portfolio

[Link to ST.com](#)

Selector guide

**TO-3PF
Triacs**

Application notes

Product know-how and design tips

[Link to ST.com](#)



Reference design

[Link to ST.com](#)

Evaluation boards

Online support

Ask your questions




[Link to ST.com](#)





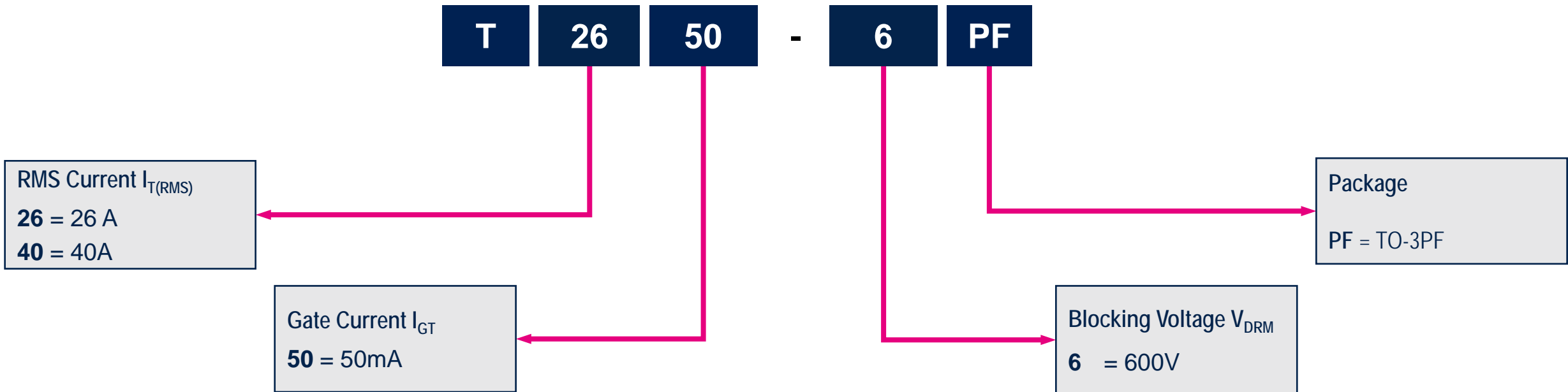
ST Thyristors are environment friendly

Recognized and compliant: Environment and Flammability

	No Fluorine	No Chlorine	No Bromine	No Iodine	No Astatine
	No Lead Plating	No Mercury	No Cadmium	No Hexavalent Chromium	No PBB No PBDE
	UL94-V0 Flammability				



TO-3PF Triac naming scheme



Our technology starts with You



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