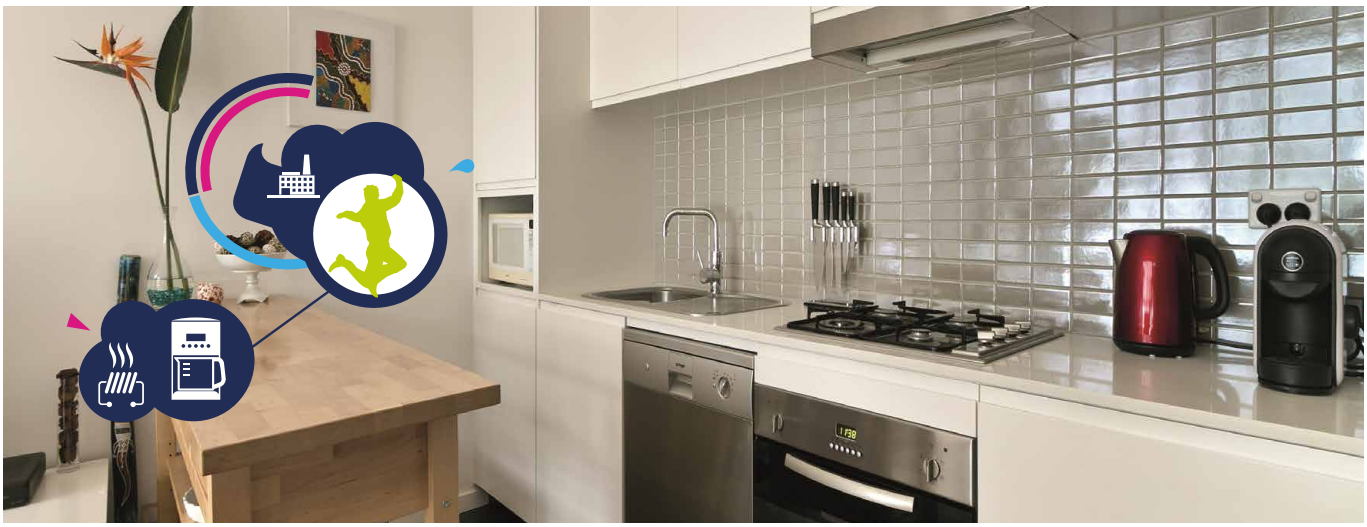
H Series TRIACs

High application robustness 150°C TRIACs



High performance, high temperature TRIACs for HVAC* and motor control

The H Series TRIACs offer a junction temperature of 150°C. They are suited to hot environments and to PCB designs requiring high power density. With a current rating up to 30 A, they are available in D²PAK and TO-220 packages.
These devices offer high thermal cycling performance and high turn-off commutation capability. They are the TRIACs for the most rugged environments in the industry.

CERTIFICATIONS

- UL 1557 @ 2500 V (TO-220AB Ins.)
- UL-94-V0 (flammability)
- Halogen-free and RoHS compliant

KEY FEATURES

High thermal cycling stability

- 150 °C operating junction temperature
- High turn-off performance
- High noise immunity
- Logic level gates available
- Surface mount design compatible (D²PAK)

KEY BENEFITS

Reliable and compact

- High reliability
- Heatsink reduction
- Adapted to dense or harsh operating conditions without snubber
- Compatible with closed ambient applications
- 10 mA for direct drive from MCU
- More compact design

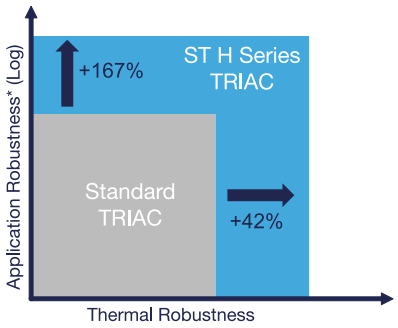
KEY APPLICATIONS

- Industrial automation
  - Heating
  - Motor soft starters
  - Inrush current limiters for motor drives
- Home appliances
  - Coffee machines
  - Vacuum cleaners
  - HVACs*
  - Power tools
- Home automation
  - Fan control
  - Lighting
  - Door/curtain/awning motors
- Power management
  - Hi-rel server UPS

* Heating, Ventilation and Air Conditioning

H SERIES TRIACS: THE COMPACT CHOICE FOR HEAVY LOADS

BETTER PERFORMANCE



*Application robustness includes noise immunity (dV/dt) and turn-off commutation $(dI/dt)_c$ under resistive and inductive loads

COMPACT DESIGN

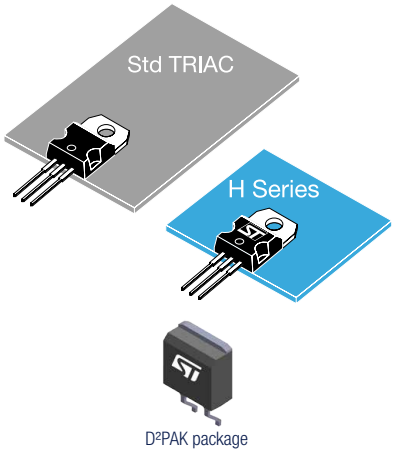
Reduced heatsink

Thanks to its high junction temperature rating, the heatsink size may be reduced.

Using H Series TRIACs can reduce the heatsink size by 50% compared to standard TRIACs for the same load.

Surface mount devices

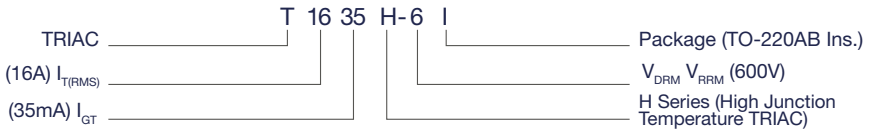
H Series TRIACs are available in the surface mount D²PAK package. It is compatible with automatic assembly lines.



D²PAK package

H SERIES TRIACS PRODUCT TABLE

Naming scheme example :



	Package			$I_{T(RMS)}$	V_{DRM},V_{RRM}	I_{GT}	dV/dt	$(dI/dt)_c$	T_J
	TO-220AB	TO-220AB Ins.	D2PAK	A	V	mA	V/µs	A/ms	°C
				Max.	Max.	Max.	@ 150 °C Min.	@ 10 V/µs @ 150 °C Min.	Max.
Logic Level Gate TRIACs									
T410H-6	T			4	600	10	75	1.5	150
T610H-6	T			6	600	10	75	2.3	150
T810H-6	T		G	8	600	10	75	3	150
T1010H-6	T		G	10	600	10	75	3.8	150
T1610H-6	T			16	600	10	100	3	150
Standard Gate, Snubberless™ TRIACs									
T835H-6	T	I	G	8	600	35	1000	11	150
T850H-6	T	I	G	8	600	50	1500	14	150
T1035H-6	T	I	G	10	600	35	1000	13	150
T1050H-6	T	I	G	10	600	50	1500	18	150
T1235H-6	T	I	G	12	600	35	1000	16	150
T1250H-6	T	I	G	12	600	50	1500	21	150
T1635H-6	T	I	G	16	600	35	1000	21	150
T1650H-6	T	I	G	16	600	50	1500	28	150
T2035H-6	T	I	G	20	600	35	1000	27	150
T2050H-6	T	I	G	20	600	50	1500	36	150
T3035H-6	T	I	G	30	600	35	1000	33	150
T3050H-6	T	I	G	30	600	50	1500	44	150

NB: Surge voltage V_{DSM},V_{RSM} = V_{DRM},V_{RRM} + 100V