

High-temperature Triacs

High-performance Triac series 150 °C junction temperature
with extended gate and on-state current range



This high-performance Triac series with 150 °C junction temperature can be used in hot environments and for PCB designs requiring high power density. Their enhanced commutation ruggedness eliminates the need for the usual RC snubber circuit, and their considerable thermal margin ($T_j = 150\text{ °C}$) allows operation with no derating whatsoever. The heatsink size may thus be reduced to a minimum. This new series secures operation even in dense or harsh operating conditions with minimal heatsink and snubber size. Initially launched with gate sensitivity of 35 mA and 50 mA, the series is now being expanded to 10 mA, allowing reduced power consumption.

Key benefits

- Heatsink reduction
- High-reliability motor control
- High turn-off performances
- High noise immunity
- High current density applications

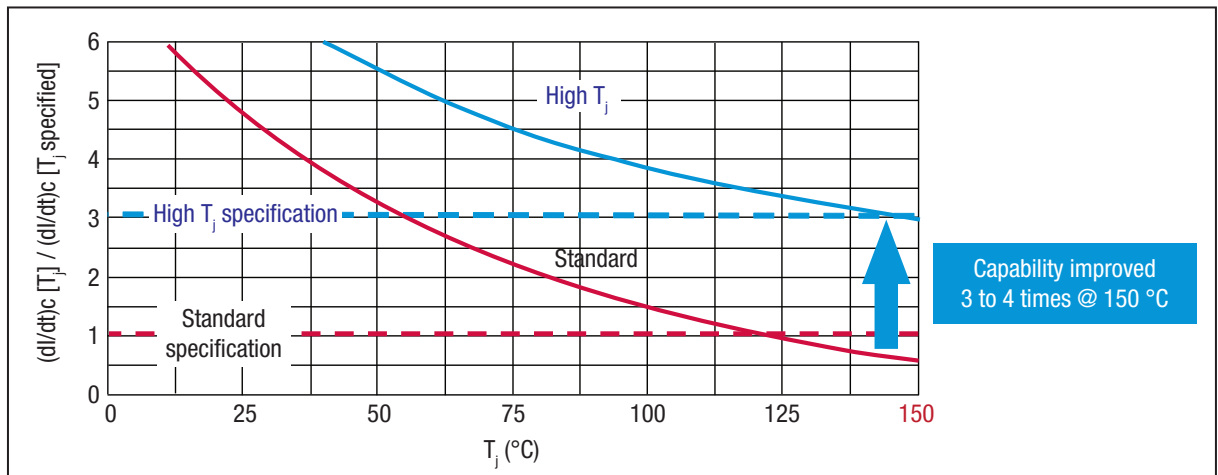
Targeted application

- Motor control (washing machines, vacuum cleaners, power tools)
- Hot environments (cookers, ovens, hobs, coffee machines, soya milk machines)
- High power density on PCBs (heaters, high-power motors)

Key features

- $I_{T(RMS)}$ current: 4 to 30 A
- T_j max = 150 °C (instead of 125 °C for standard Triacs)
- V_{RRM}/V_{DRM} : 600 V
- I_{GT} : 10 mA, 35 mA and 50 mA
- Turn-off capability – inductive commutation: 3 to 4 times the $I_{T(RMS)}$ equivalent resistive load slope compared to standard 125 °C Triacs
- Noise immunity: up to 1500 V/μs
- TO-220AB non insulated, TO-220AB ceramic insulated and D²PAK packages

Maximum turn-off capability



High-temperature Triac (H series) product table

$I_{T(RMS)}$ (A)	V_{RRM} / V_{DRM} (V)	$I_{TSM}^{(2)(3)}$ (A)	$I_{GT} \text{ max}^{(2)}$ (mA)	$(di/dt)c$ min ⁽⁴⁾ (A/ms)	dV/dt min ⁽⁴⁾ (V/ μ s)	Quadrants	T_j (°C)	Packages		
								D ² PAK ⁽¹⁾	T0-220AB	T0-220AB Ins.
4	600	40	10	5.7	75	I - II - III	150		T410H-6T	
6	600	60	10	8.7	75	I - II - III	150		T610H-6T	
8	600	80	10	11.4	75	I - II - III	150	T810H-6G	T810H-6T	
8	600	80	35	11.0	1000	I - II - III	150	T835H-6G	T835H-6T	T835H-6I
8	600	80	50	14.0	1500	I - II - III	150	T850H-6G	T850H-6T	T850H-6I
10	600	100	10	14.4	75	I - II - III	150	T1010H-6G	T1010H-6T	
10	600	100	35	13.0	1000	I - II - III	150	T1035H-6G	T1035H-6T	T1035H-6I
10	600	100	50	18.0	1500	I - II - III	150	T1050H-6G	T1050H-6T	T1050H-6I
12	600	120	35	16.0	1000	I - II - III	150	T1235H-6G	T1235H-6T	T1235H-6I
12	600	120	50	21.0	1500	I - II - III	150	T1250H-6G	T1250H-6T	T1250H-6I
16	600	160	35	21.0	1000	I - II - III	150	T1635H-6G	T1635H-6T	T1635H-6I
16	600	160	50	28.0	1500	I - II - III	150	T1650H-6G	T1650H-6T	T1650H-6I
20	600	200	35	27.0	1000	I - II - III	150	T2035H-6G	T2035H-6T	T2035H-6I
20	600	200	50	36.0	1500	I - II - III	150	T2050H-6G	T2050H-6T	T2050H-6I
30	600	300	35	33.0	1000	I - II - III	150		T3035H-6T ^(*)	T3035H-6I ^(*)
30	600	300	50	44.0	1500	I - II - III	150		T3050H-6T ^(*)	T3050H-6I ^(*)

(*) New products

(1) Also available in tape and reel (with -TR suffix)

(2) I_{TSM} specified at $T_{j \text{ initial}} = 25$ °C, I_{GT} specified at $T_j = 25$ °C

(3) $t_p = 10$ ms

(4) Specified at $T_j = 150$ °C



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