T1220H-8A 12A TRIAC

The T1220H-8A triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. Compared to traditional triacs, T1220H-8A provides a very high switching capability up to junction temperatures of 150°C. By using an internal ceramic pad, T1220H-8A provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.

[redacted]

Average gate power dissipation (T_j=150)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	4.5	kV

(T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33q	- -	MAX.	20	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j =150 R_L =3.3kq	- -	MIN.	0.2	V
I_L	I_G =1.2I_{GT}	-	MAX.	25	mA
				55	
I_H	I_T =500mA		MAX.	25	mA
dV/dt	V_D=540V Gate Open T_j =150		MIN.	400	V/εs
(dI/dt)c	(dV/dt)c=20V/εs, T_j=150		MIN.	3	A/ms
t_{on}	I_G=40mA I_A=200mA I_R=20mA T_j=25		TYP.	3	εs
t_{off}				60	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM} =17A t_p=380εs	T_j=25	1.4	V
V_{TO}	Threshold voltage	T_j=150	0.75	V

T	12	20	H	-8	A

- T: Triacs
- 12: $I_{T(RMS)}$:12A
- 20: I_{GT1-3} 20mA
- H: High junction temperature
- -8: V_{DRM} /V_{RRM} 800V
- A: A:TO-220A(Ins)

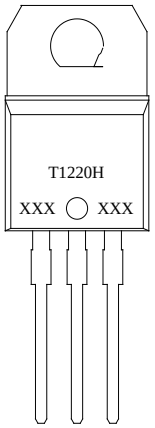


FIG.1: Maximum power dissipation versus RMS on-state current

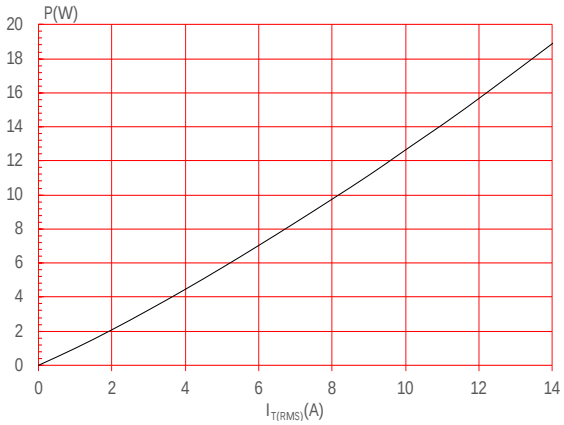
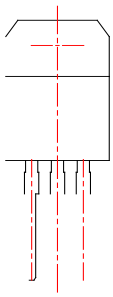


FIG.2: RMS on-state current versus case temperature

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T1220H-8A	800	20	TO-220A(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct.11, 2025	A.1.1	Revise



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