T1235H-8F 12A TRIAC

Rev.A.1.1

DESCRIPTION:

The T1235H-8F 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, T1235H-8F provides a very high switching capability up to junction temperatures of 150°C. By using an external plastic package, T1235H-8F provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F is RoHS compliant.

MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	
Operating junction temperature range	T_j	-40-150	
Repetitive peak off-state voltage (T_j=25)	V_{DRM}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current ($T_C \leq$ 106)	$I_{T(RMS)}$	12	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms ; T_j=25)	I_{TSM}	120	A

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

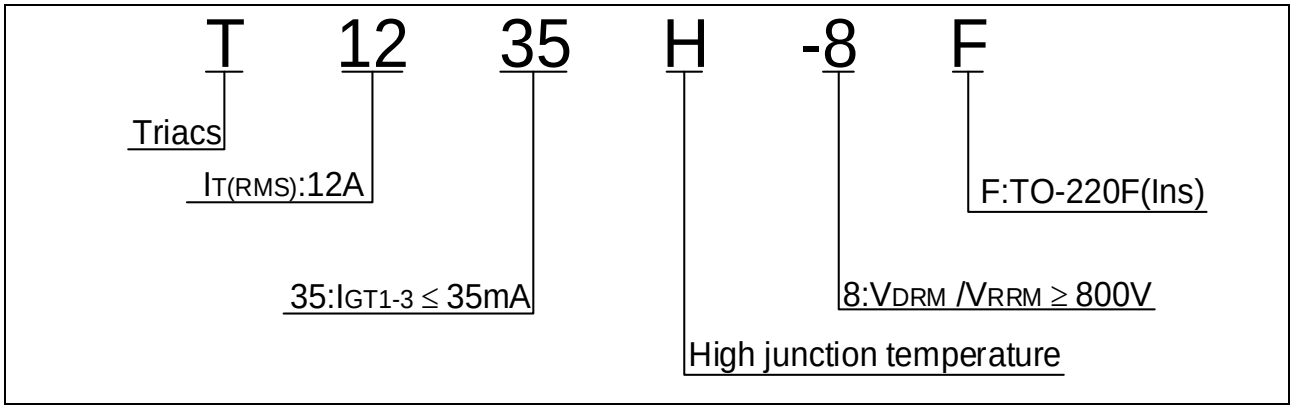
ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	35	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j =150 R_L =3.3kΩ	- -	MIN.	0.2	V
I_L	I_G =1.2I_{GT}	-	MAX.	30	mA
				60	
I_H	I_T =500mA		MAX.	30	mA
dV/dt	V_D=540V Gate Open T_j =150		MIN.	500	V/μs
(dI/dt)c	(dV/dt)c=20V/μs, T_j=150		MIN.	5	A/ms
t_{on}	I_G=40mA I_A=200mA I_R=20mA		TYP.	3	μs
t_{off}	T_j=25 =25			60	

STATIC CHARACTERISTICS

Symbol	Parameter			Value(MAX.)	Unit
V_{TM}	I_{TM} =17A t_p=380μs	T_j=25	t	1	

ORDERING INFORMATION



MARKING

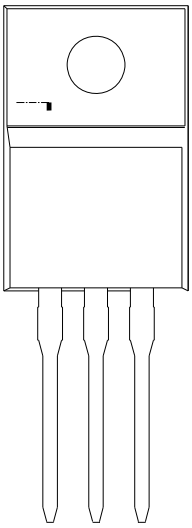
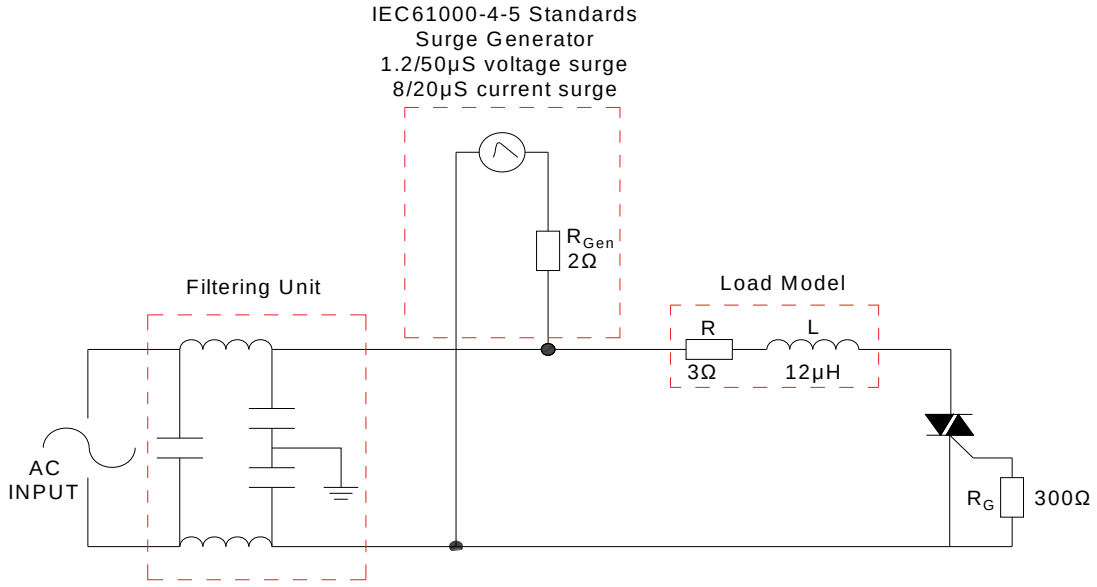


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T1235H-8F	800	35	TO-220F(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct.10, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document supersedes and replaces all information previously supplied.

=