DESCRIPTION:

The T0610H-6H 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 operating in light dimmers, junction temperatures of 150°

TO-251 is RoHS compliant.

MAIN FEATURES

Storage junction temperature range	T_{stg}	-40-150	
Operating junction	j	-40-150	
Repetitive peak off-state voltage (T_j=25)	V	6	V
Repetitive peak reverse voltage (T_j=25)	V	6	V
R C ≤ 119)	I_T	6	A
Non repetitive surge peak on-state current (full cycle , t_p= j=25)	I_T	60	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		66	
I^2t p= j	^2t	18	A^2s
Critical rate of rise of on-state current (G= × I_{GT} j=150)	dI/dt A	50	A/μs
p j			
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}	3	kV

ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	10	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.	20	mA
				35	
I_H	I_T =100mA		MAX.	20	mA
dV/dt	V_D=400V Gate Open T_j =150		MIN.	200	V/μs
(dI/dt)c	(dV/dt)c=20V/μs, T_j=150		MIN.	1.5	A/ms
t_{on}	I_G=20mA I_A=200mA I_R=20mA T_j=25		TYP.	2.5	μs
t_{off}				25	

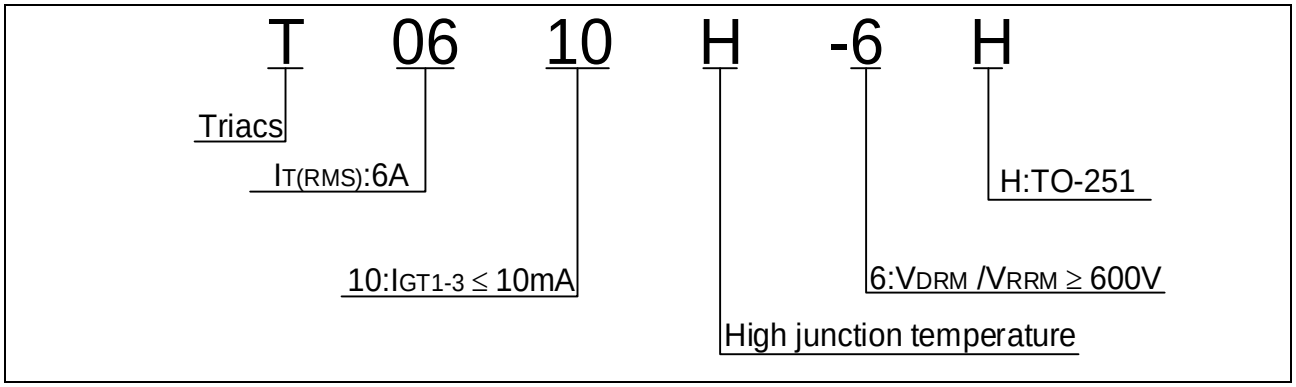
STATIC CHARACTERISTICS

V_{TM}	I_{TM} =8.5A t_p=380μs	T_j=25	1.4	V
V_{TO}	Threshold voltage	T_j=150	0.8	V
R_D	Dynamic resistance	T_j=150	63	mΩ
I_{DRM}	V_D =V_{DRM} V_R =V_{RRM}	T_j=25	5	μA
I_{RRM}		T_j=150	0.8	mA

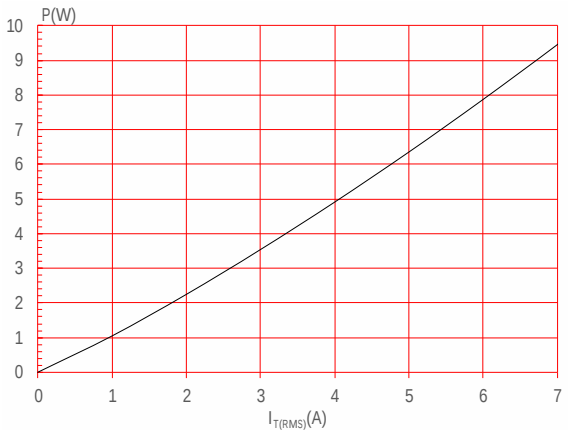
THERMAL RESISTANCES

$R_{th(j-c)}$	junction to case (AC)	4	/W
$R_{th(j-a)}$	junction to ambient (AC)	120	/W

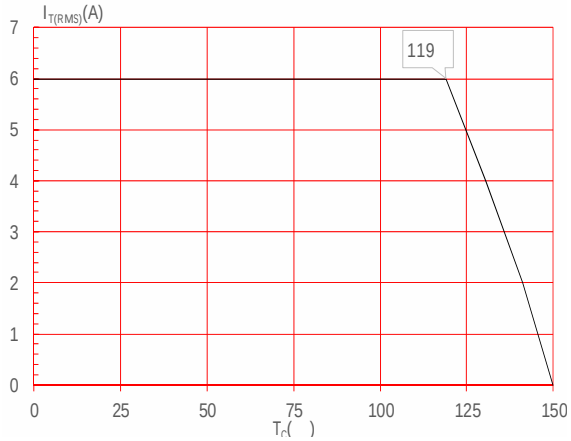
ORDERING INFORMATION



Maximum power dissipation versus RMS on-state current

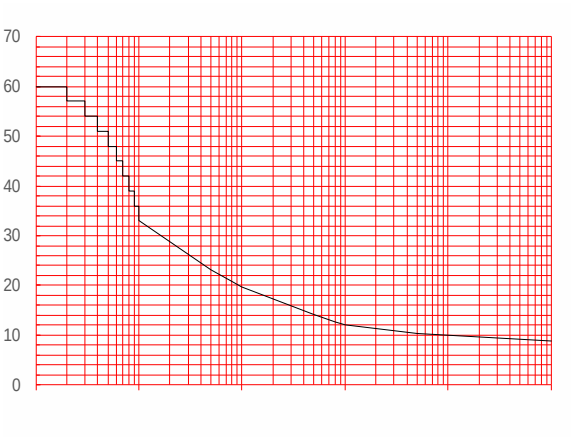


RMS on-state current versus case temperature



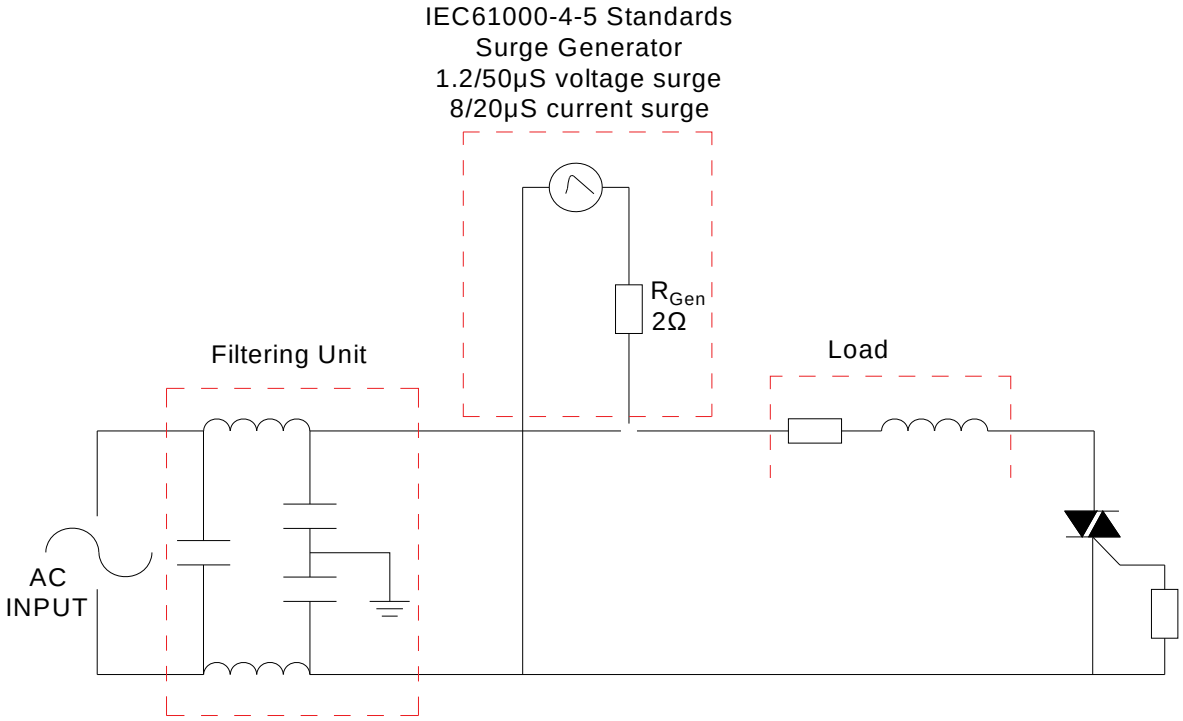
7 0 Surge peak on-state current versus number of cycles

6 0



On-state characteristics

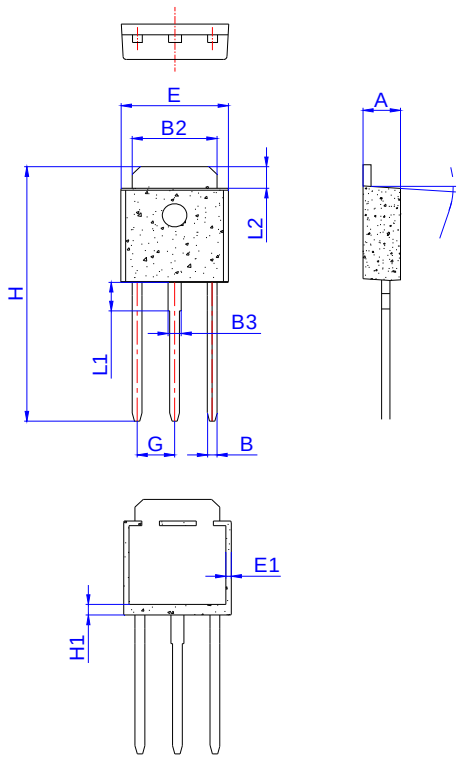
FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



ORDERING INFORMATION



PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.20		2.40	0.086		0.095
A2	1.00		1.30	0.039		0.051
B	0.50		0.70	0.020		0.028
B2	5.10		5.40	0.200		0.213
B3						
C						
C2						
D						
E						
E1	0.60		1.00	0.024		0.039
G						
H	16.00		17.00	0.630		0.669
H1	1.45		1.85	0.057		0.073
L1						

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