T0620H-6E 6A TRIAC

Rev.A.1.1

DESCRIPTION:

The T0620H-6E 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, T0620H-6E provides a very high switching capability up to junction temperatures of 150°C. Package TO-263 is RoHS compliant.

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	6	A
V_{DRM} /V_{RRM}	600	V
I_{GT} / /	20/20/20	mA

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}	600	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	600	V
RMS on-state current (T_C 0132)	$I_{T(RMS)}$	6	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	60	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		66	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	18	A^2s
Critical rate of rise of on-state current (I_G=2× I_{GT} , f=100Hz , T_j=150)	dI/dt	80	A s
Peak gate current (t_p=20 s , T_j=150)	I_{GM}	4	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.8)	V_{pp}	3	kV

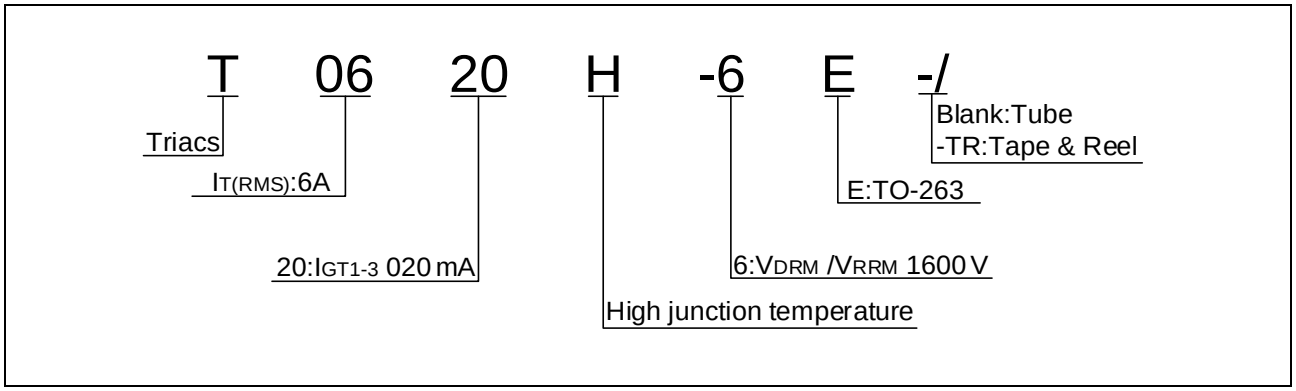
ELECTRICAL CHARACTERISTICS (T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33	- -	MAX.	20	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j =150 R_L =3.3k	- -	MIN.	0.2	V
I_L	I_G =1.2I_{GT}	-	MAX.	40	mA
				55	
I_H	I_T =100mA		MAX.	30	mA
dV/dt	V_D=400V Gate Open T_j =150		MIN.	1000	V s
(dI/dt)c	G 9 G W F j=9150V 7		MIN.	2	A/ms
t_{on}	I_G=40mA I_A=200mA I_R=20mA T_j=25		TYP.	3	s
t_{off}				30	

STATIC CHARACTERISTICS

Symbol

ORDERING INFORMATION



MARKING

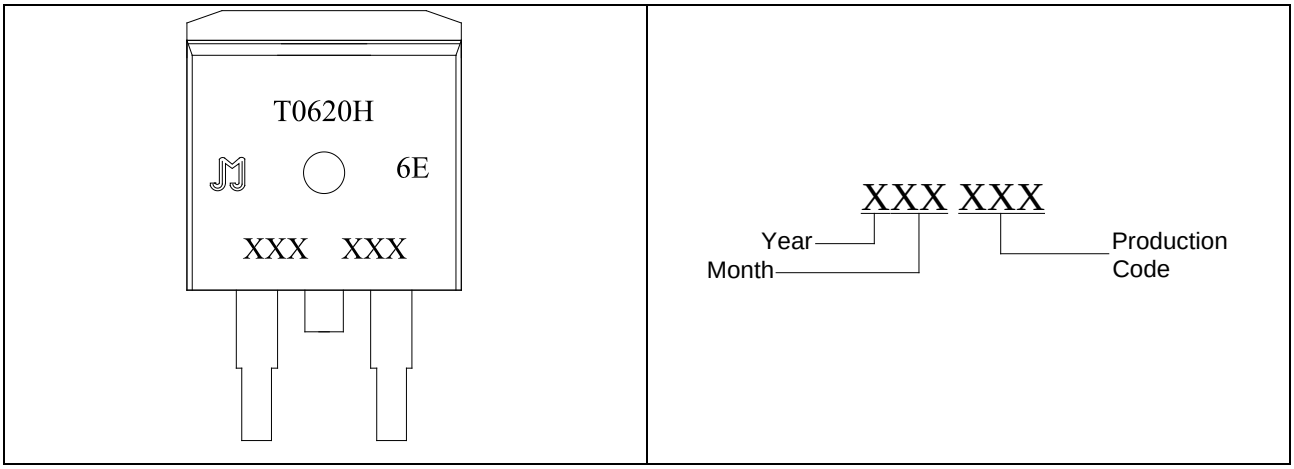


FIG.1: Maximum power dissipation versus RMS on-state current

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

FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

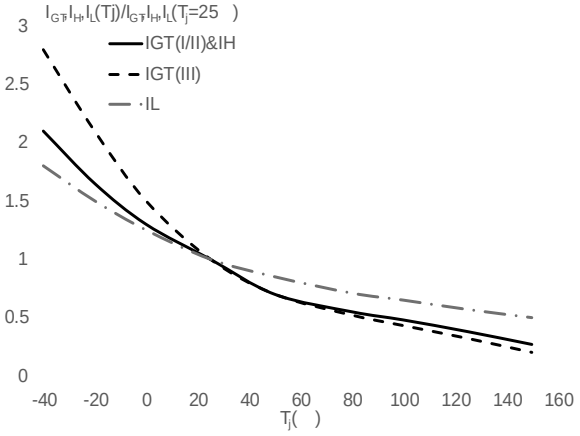
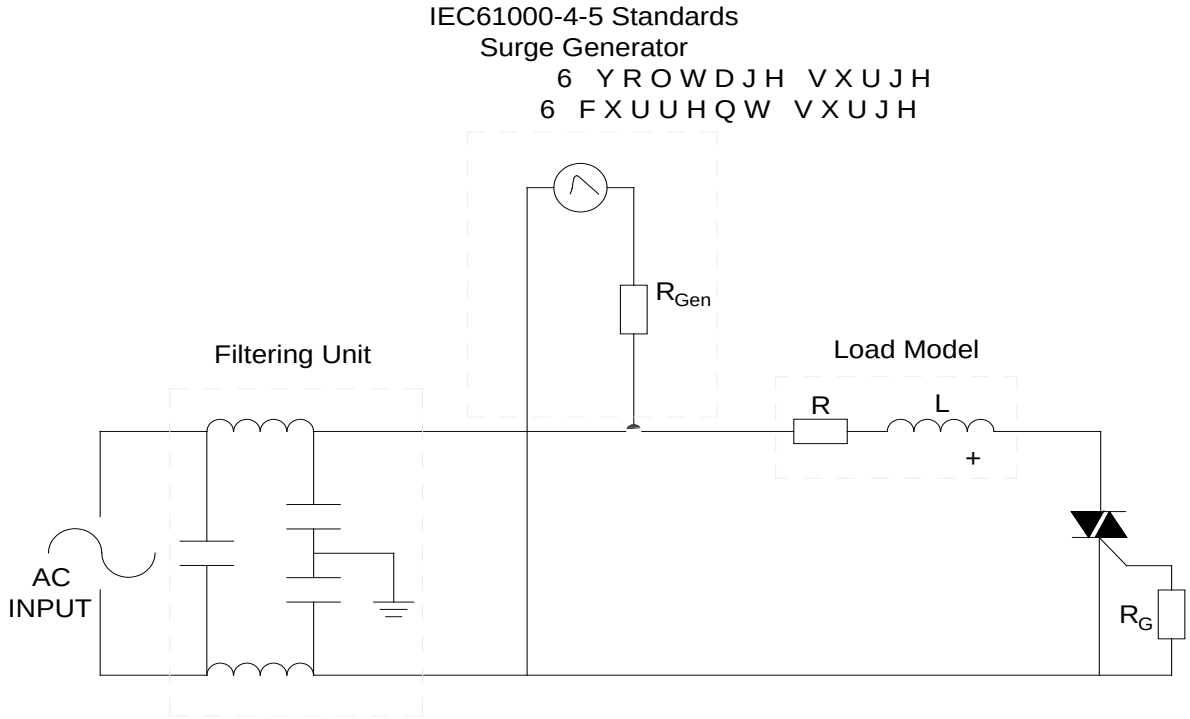


FIG.8 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



ORDERING INFORMTON

Order coe	Voltage V_{DRM}/V_{RRM} (V)	IGT(m)	Packag	Base qty.	mode
		- -			
T0620H-6E-TR				800	Tape Reel

Document Revision History

Date	Revision	Changes
Apr. 3	A.1.0	Last upd
Oct.16, 2025	A.1.1	Revise P

PACKAGE MECHANICAL DATA

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	9.40		9.60	0.370		0.378
D	2.40			0.094		
E	1.20		1.50			
F						

DELIVERY MODE

