



T0420H-8K 4A TRIAC

Rev.A.1.1

DESCRIPTION:

The T0420H-8K 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, T0420H-8K provides a very high switching capability up to junction temperatures of 150°C. Package TO-252 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}		

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.8)	V_{pp}	4	kV
----------------------------------------------------------------------	----------	---	----

ELECTRICAL CHARACTERISTICS (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.	30	mA
				40	
I_H	$I_T=100mA$		MAX.	25	mA
dV/dt	$V_D=540V$ Gate Open $T_j=150$		MIN.	800	V/s
$(dI/dt)_c$	$V_D=150V$ $T_j=150$		MIN.	5	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	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=5.5A$ $t_p=380$ s	$T_j=25$	1.4	V
V_{TO}	Threshold voltage	$T_j=150$	0.6	V
R_D	Dynamic resistance	$T_j=150$	129	P

I_{DRM}

$V_D=V_{DRM}$ $t_d(50)T_j$ EMC /Span m (D) T_j -0.006 4 0 0.006 Tw 0.71R 0 12 262.68 359.52 Tm [(=-)8 (5)112 96.04 0 0 8.04 149.

ORDERING INFORMATION

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

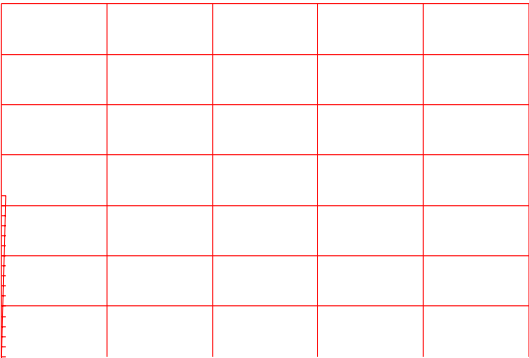
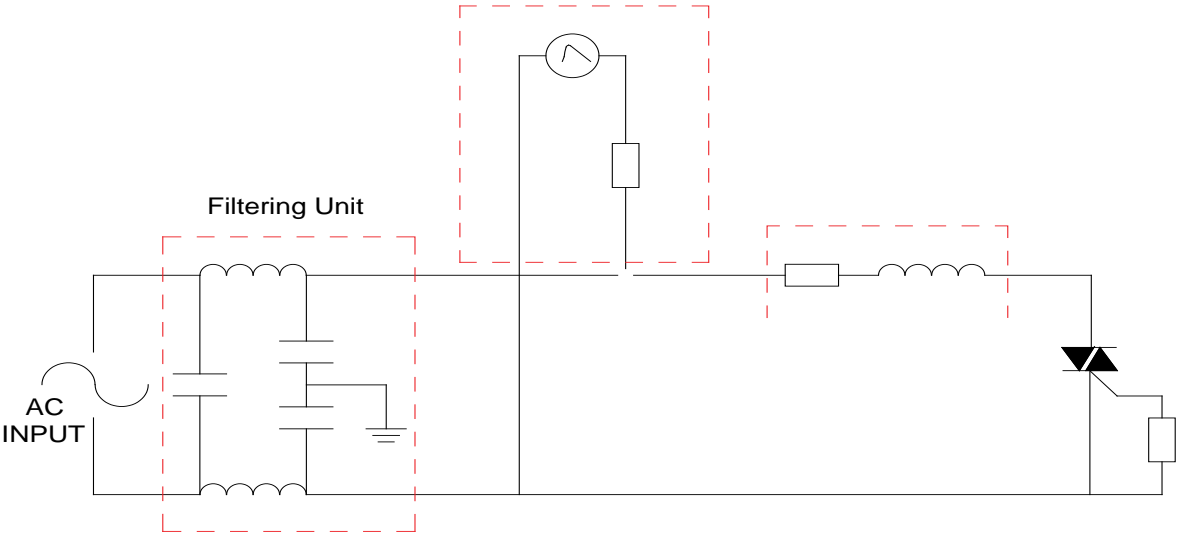


FIG.2: RMS on-state current versus case temperature

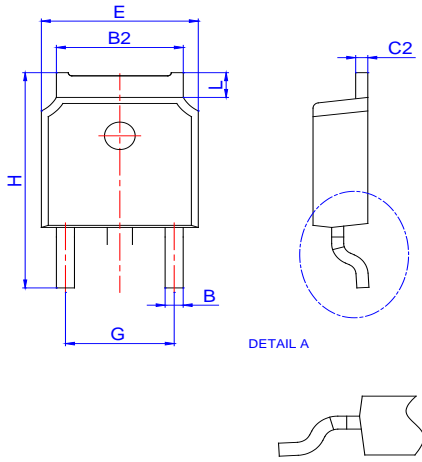
FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature



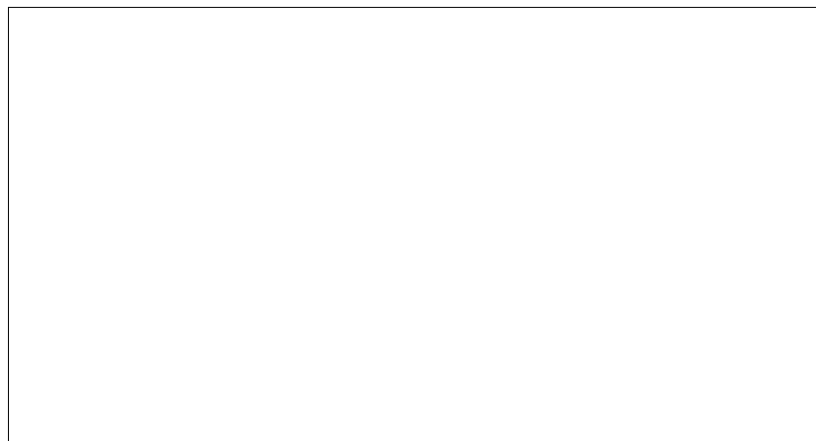
FIG.8 ÖTest circuit for inductive and resistive loads to IEC-61000-4-5 standards



PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0		0.15	0		0.006
B	0.66		0.86	0.026		0.034
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1						
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
G1	2.18		2.38	0.086		0.094
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065



T0420H-8K

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.