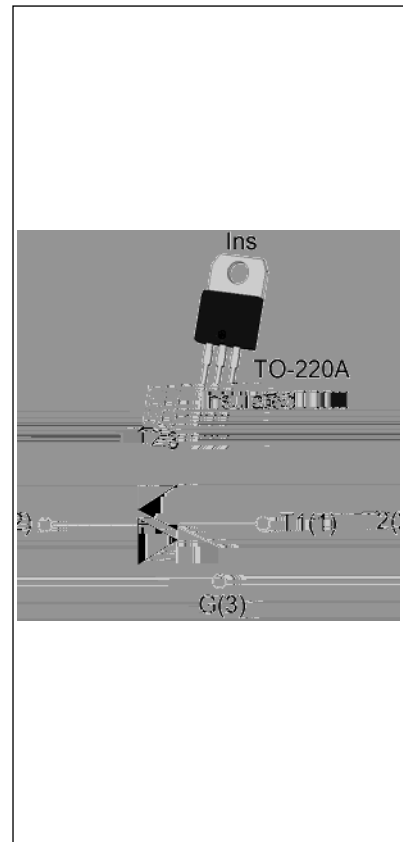




The T0435H-6A triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. Compared to traditional triacs, T0435H-6A provides a very high switching capability up to junction temperatures of 150°C. By using an internal ceramic pad, T0435H-6A provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	4	A
$V_{DRM}/V_{RRM}$	600	V
$I_{GT} / /$	35/35/35	mA

Storage junction temperature range	$T_{stg}$	-40-150	
Operating junction temperature range	$T_j$	-40-150	
Repetitive peak off-state voltage ( $T_j=25^\circ C$ )	$V_{DRM}$	600	V
Repetitive peak reverse voltage ( $T_j=25^\circ C$ )	$V_{RRM}$	600	V
RMS on-state current ( $T_c = 130^\circ C$ )	$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current (full cycle, $t_p=20ms$ , $T_j=25^\circ C$ )	$I_{TSM}$	40	A
Non repetitive surge peak on-state current (full cycle, $t_p=16.6ms$ , $T_j=25^\circ C$ )		44	
$I^2t$ value for fusing ( $t_p=10ms$ , $T_j=25^\circ C$ )	$I^2t$	8	$A^2s$
Critical rate of rise of on-state current ( $I_G=2 I_{GT}$ , $f=100Hz$ , $T_j=150^\circ C$ )	$di/dt$	80	$A/\mu s$
Peak gate current ( $t_p=20\mu s$ , $T_j=150^\circ C$ )	$I_{GM}$	4	A



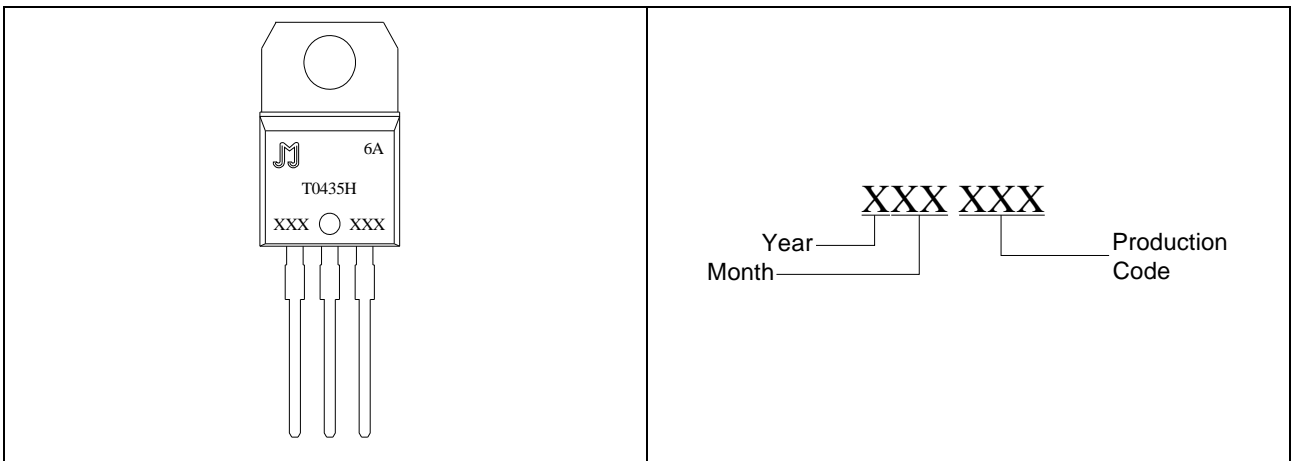
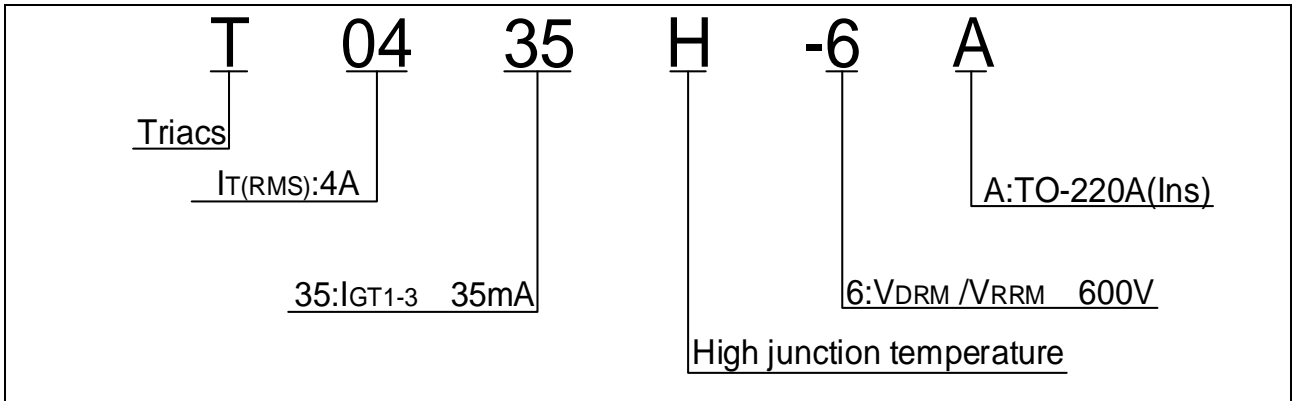
Average gate power dissipation ( $T_j=150$ )	$P_{G(AV)}$	1	W
Peak gate power	$P_{GM}$	10	W
Peak pulse voltage ( $T_j=25$ ; non-repetitive, off-state; FIG. 7)	$V_{pp}$	4	kV

( $T_j=25$  unless otherwise specified)

$I_{GT}$	$V_D=12V R_L=33$	- -	MAX.	35	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
				50	
$I_H$	$I_T=100mA$		MAX.	30	mA
$dV/dt$	$V_D=400V$ Gate Open $T_j=150$		MIN.	1200	V/ $\mu s$
( $dI/dt$ ) <sub>c</sub>	( $dV/dt$ ) <sub>c</sub> =20V/ $\mu s$ , $T_j=150$		MIN.	8	A/ms
$t_{on}$	$I_G=40mA I_A=200mA I_R=20mA$ $T_j=25$		TYP.	3	$\mu s$
$t_{off}$				30	

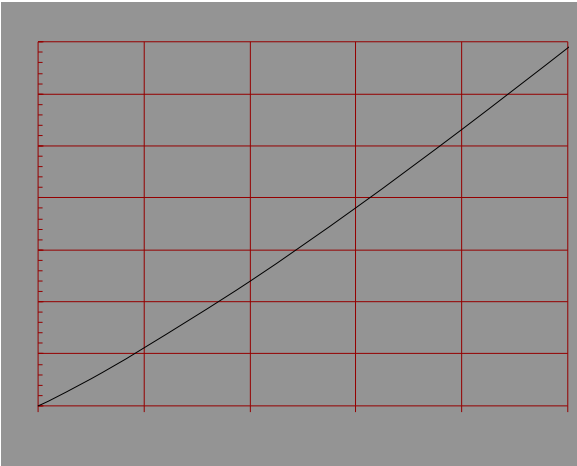
$V_{TM}$	$I_{TM}=5.5A t_p=380\mu s$	$T_j=25$		1.4	V
$V_{TO}$	Threshold voltage	$T_j=150$		0.6	V
$R_D$	Dynamic resistance	$T_j=150$		129	m
$I_{DRM}$	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$		5	$\mu A$
$I_{RRM}$		$T_j=150$		0.8	mA

$R_{th(j-c)}$	junction to case (AC)			3.8	/W
$R_{th(j-a)}$	junction to ambient (AC)			60	/W

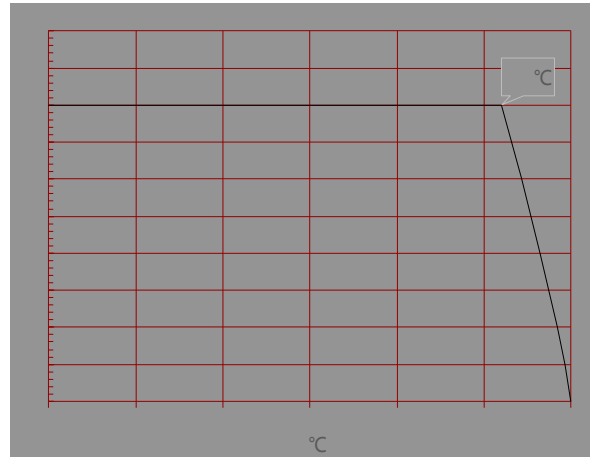




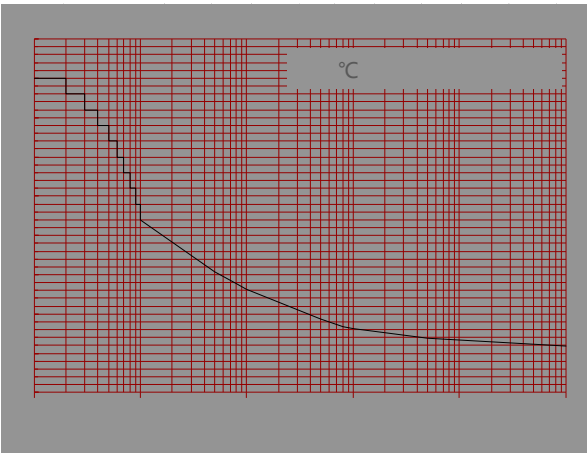
Maximum power dissipation versus RMS on-state current



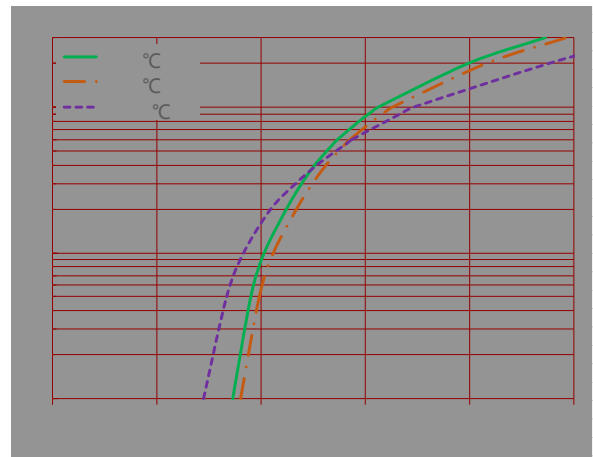
RMS on-state current versus case temperature



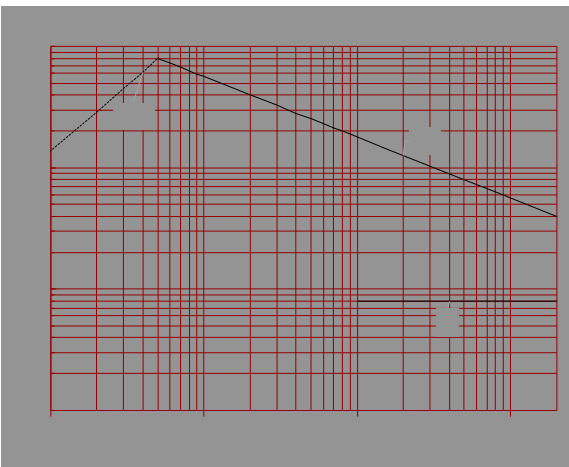
Surge peak on-state current versus number of cycles



On-state characteristics



Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 20\text{ms}$ , and corresponding value of  $I^2t$  ( $dI/dt < 80\text{A}/\mu\text{s}$ )



Relative variations of gate trigger current, holding current and latching current versus junction temperature

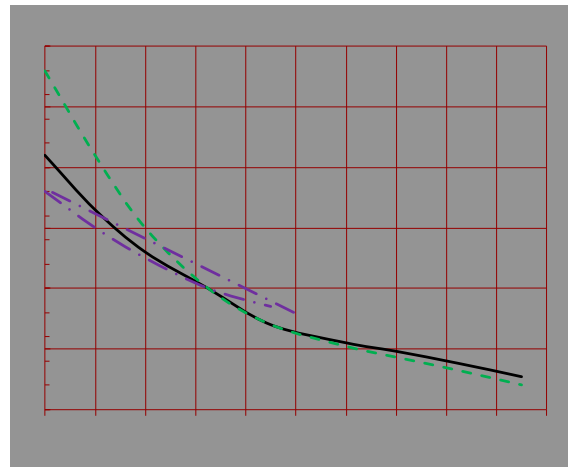
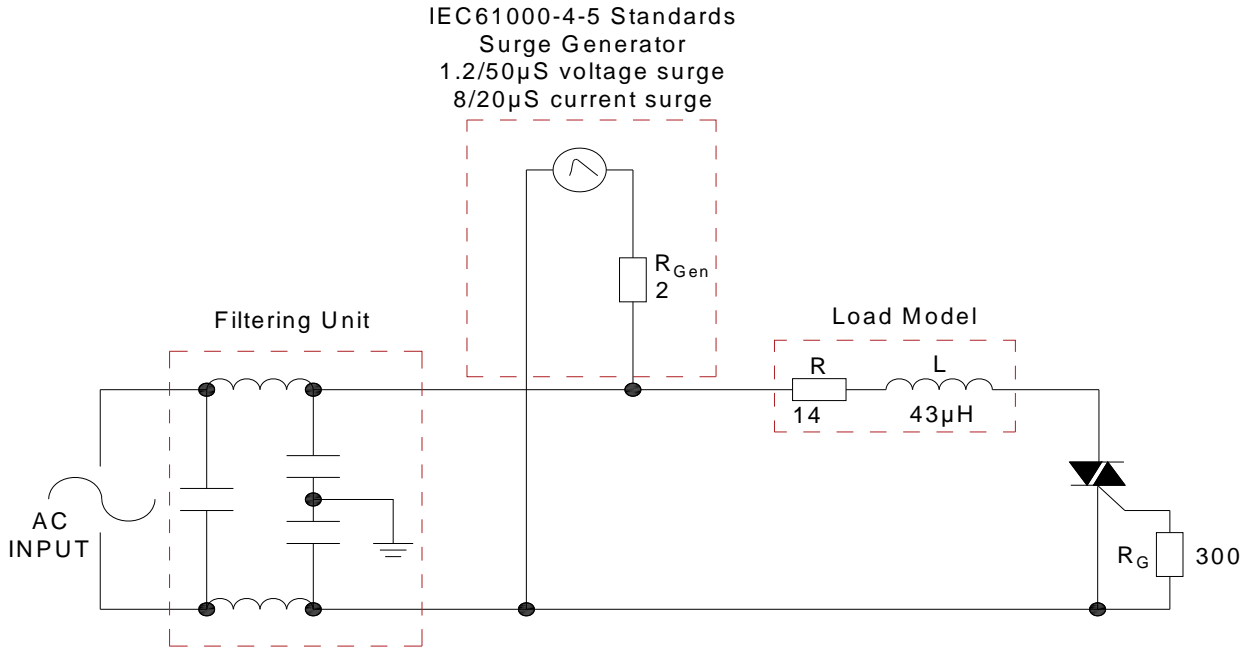




FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



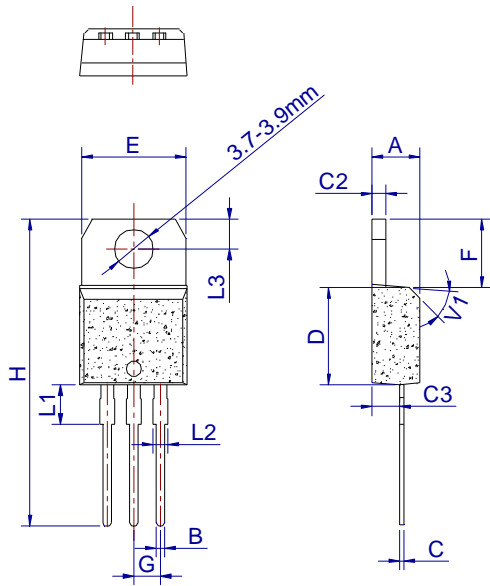
Refer to Instructions for installation of plastic-sealed in-line power devices released by JieJie



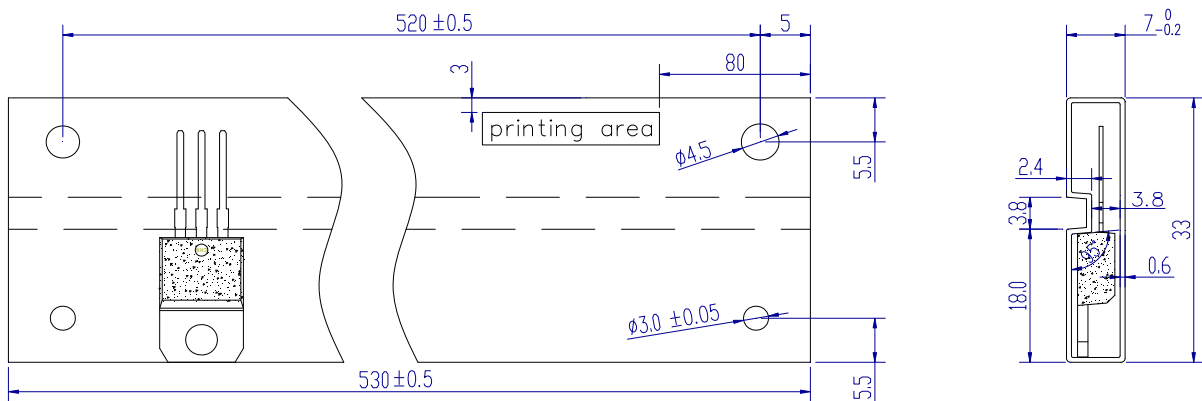
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		I II III			

Date	Revision	Changes
Apr.10, 2023	A.1.0	Last updated



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.61		0.88	0.024		0.035
C	0.46		0.70	0.018		0.028
C2	1.21		1.32	0.048		0.052
C3	2.40		2.72	0.094		0.107
D	8.60		9.70	0.339		0.382
E	9.80		10.4	0.386		0.409
F	6.25		6.85	0.246		0.270
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1	3.45		4.05	0.136		0.159
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116
V1		45°			45°	



Part Number	Material	Quantity	Lot Size	Stock
TO-220A	TUBE	50	1,000	5,000

