

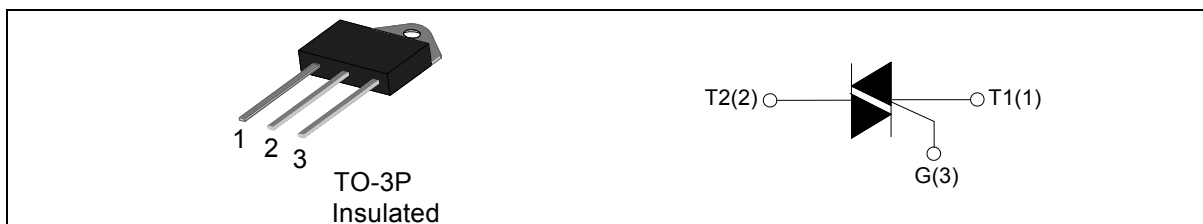


DESCRIPTION:

T40xxH series triacs, with high ability to withstand the shock loading of large current, provide high dv/dt rate with strong resistance to electromagnetic interference. With high commutation performances, 3 quadrants products especially recommended for use on inductive load.

MAIN FEATURES

Symbol	Value	Unit
T_j	150	°C
$I_{T(RMS)}$	40	A
V_{DRM}/V_{RRM}	600/800	V



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	°C
Operating junction temperature range	T_j	-40-150	°C
Repetitive peak off-state voltage ($T_j=25^\circ\text{C}$)	V_{DRM}	600/800	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	600/800	V
Non repetitive surge peak Off-state voltage	V_{DSM}	$V_{DRM} + 100$	V
Non repetitive peak reverse voltage	V_{RSM}	$V_{RRM} + 100$	V
RMS on-state current TO-3P ($T_C=97^\circ\text{C}$)	$I_{T(RMS)}$	40	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	I_{TSM}	400	A
I^2t value for fusing ($t_p=10\text{ms}$)	I^2t	880	A^2s
Critical rate of rise of on-state current ($I_G = 2 \times I_{GT}$)	di/dt	50	$\text{A}/\mu\text{s}$
Peak gate current	I_{GM}	4	A
Average gate power dissipation	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	10	W

ELECTRICAL CHARACTERISTICS (T_j=25°C unless otherwise specified)

Symbol	Test Condition	Quadrant		Value	Unit
I _{GT}	V _D = 12V R _L = 33Ω	I - II - III	MAX	50	mA
V _{GT}		I - II - III	MAX	1.3	V
V _{GD}	V _D = V _{DRM} T _j = 150°C R _L = 3.3KΩ	I - II - III	MIN	0.2	V
I _L	I _G = 1.2I _{GT}	I - III	MAX	80	mA
		II		100	
I _H	I _T = 100mA		MAX	60	mA
dV/dt	V _D = 2/3V _{DRM} Gate Open T _j = 150°C		MIN	1500	V/μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V _{TM}	I _{TM} = 60A t _p = 380μs	T _j = 25°C	1.5	V
I _{DRM}	V _D = V _{DRM} V _R = V _R RM	T _j = 25°C	10	μA
I _{RRM}		T _j = 150°C	5	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
R _{th(j-c)}	junction to case(AC)	TO-3P(Ins)	1.1	°C/W

ORDERING INFORMATION

T Triacs 40: I _{T(RMS)} : 40A 50: I _{GT1-3} ≤ 50mA H: T _j = 150°C	40 50 H	-6 Z 6: V _{DRM} / V _{RRM} ≥ 600V 8: V _{DRM} / V _{RRM} ≥ 800V	-/ Blank: Tube Z: TO-3P(Ins)
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MARKING

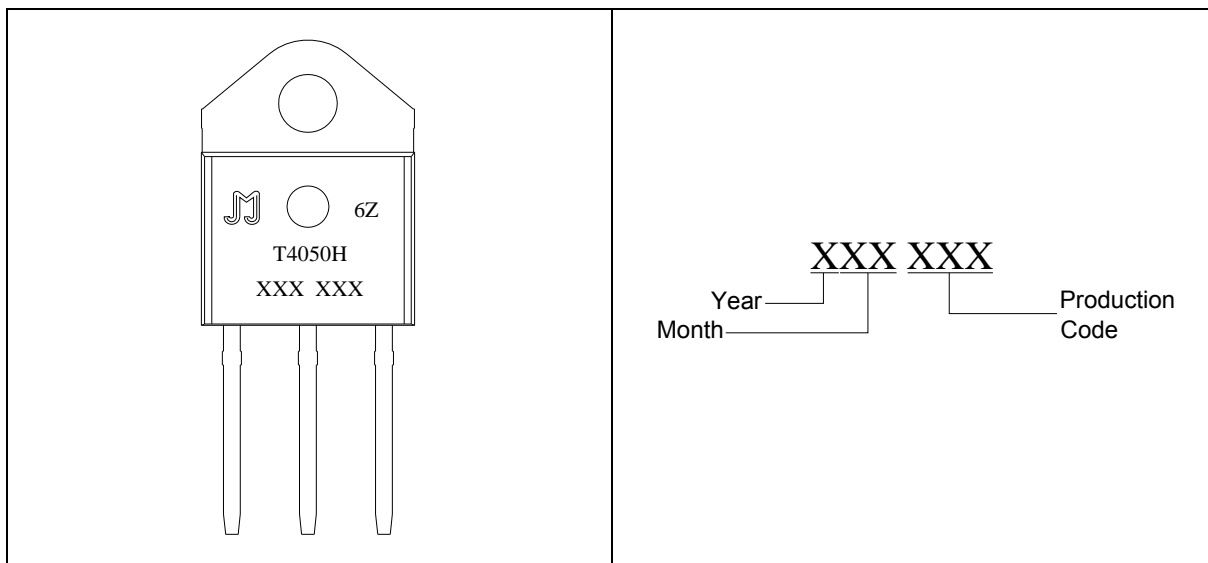


FIG.1 Maximum power dissipation versus RMS on-state current

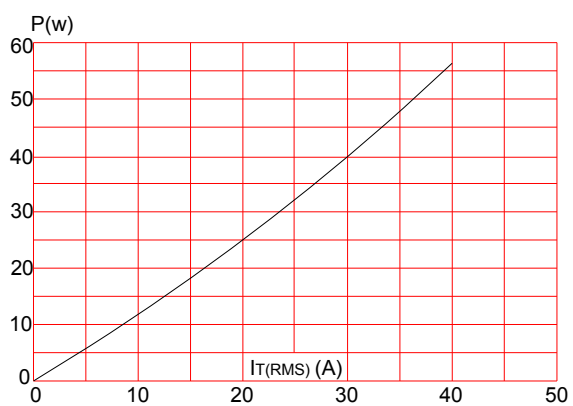


FIG.2: RMS on-state current versus case temperature

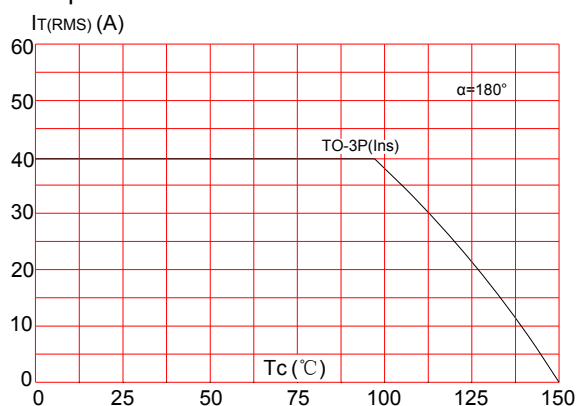


FIG.3: Surge peak on-state current versus number of cycles

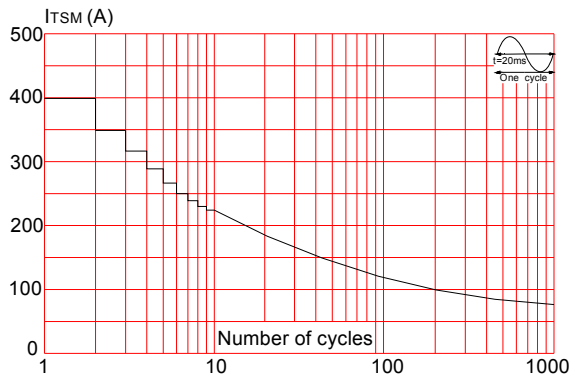


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t ($dI/dt < 50\text{A}/\mu\text{s}$)

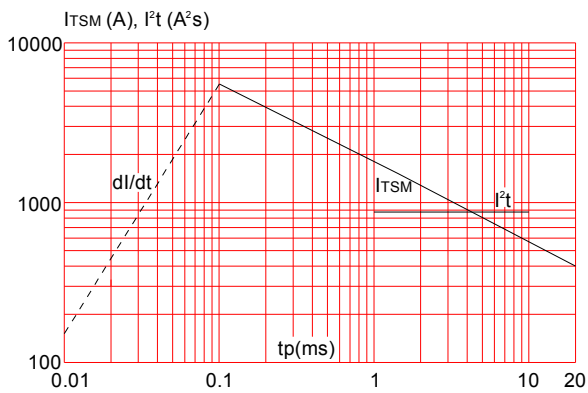


FIG.4: On-state characteristics (maximum values)

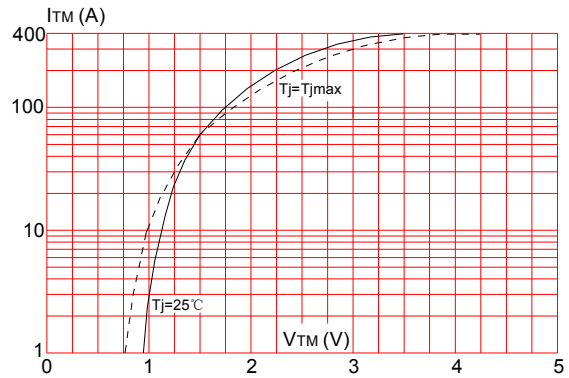
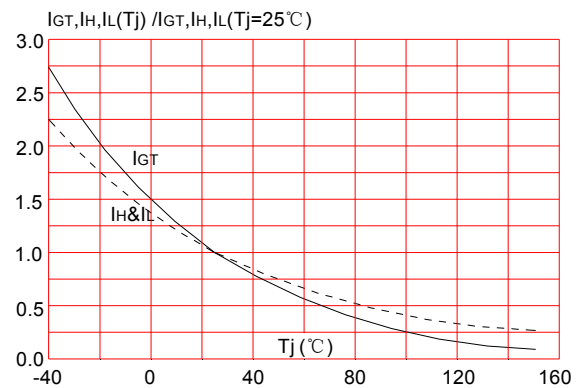


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature



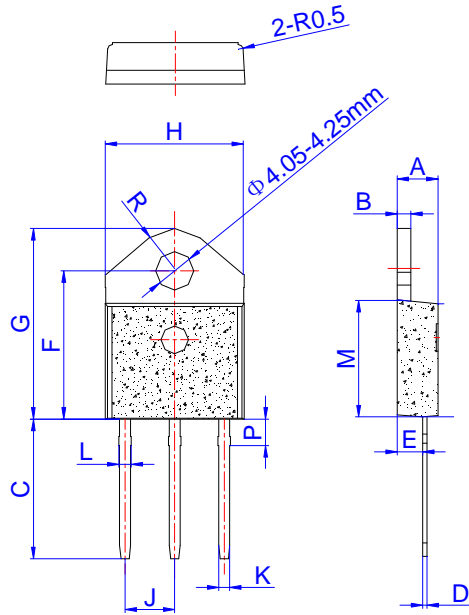
ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
T4050H-6(8)Z	600/800	50	TO-3P	50	Tube

Document Revision History

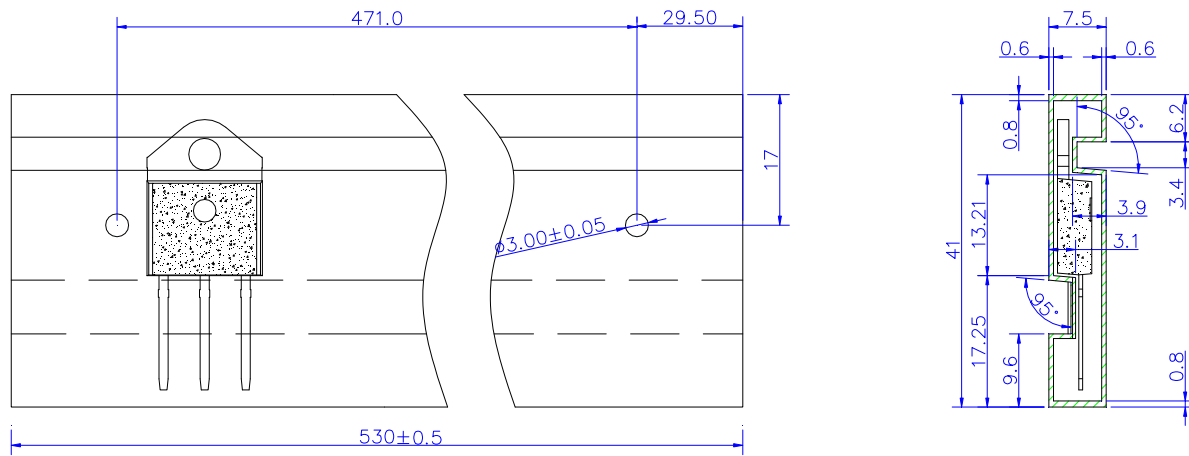
Date	Revision	Changes
July 20, 2018	1	Last update

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	1.45		1.55	0.057		0.061
C	14.35		15.60	0.565		0.614
D	0.50		0.70	0.020		0.028
E	2.70		2.90	0.106		0.114
F	15.80		16.50	0.622		0.650
G	20.40		21.10	0.803		0.831
H	15.10		15.50	0.594		0.610
J	5.40		5.65	0.213		0.222
K	1.10		1.40	0.043		0.055
L	1.25		1.45	0.049		0.057
M	12.37		12.77	0.487		0.503
P	2.80		3.00	0.110		0.118
R		4.35			0.171	


DELIVERY MODE



PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-3P	TUBE	30	450	2,250



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