



T4050H-6Z 40A TRIAC

Rev.A.1.1

DESCRIPTION:

The T4050H-6Z 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, T4050H-6Z provides a very high switching capability up to junction temperatures of 150°C. s.

Average gate power dissipation ($T_j=150$)	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	40	W
Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{pp}	2	kV

ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33\Omega$	- -	MAX.	50	mA
V_{GT}		- -	MAX.	1.3	V
V_{GD}	$V_D=V_{DRM}$ $T_j=150$ $R_L=3.3k\Omega$	- -	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	-	MAX.	80	mA
				150	
I_H	$I_T=1A$		MAX.	80	mA
dV/dt	$V_D=400V$ Gate Open $T_j=150$		MIN.	1800	V/ μs
$(dI/dt)_c$	$(dV/dt)_c=20V/\mu s$, $T_j=150$		MIN.	30	A/ms
t_{on}	$I_G=80mA$ $I_A=400mA$ $I_R=40mA$ $T_j=25$		TYP.	5	μs
t_{off}				50	

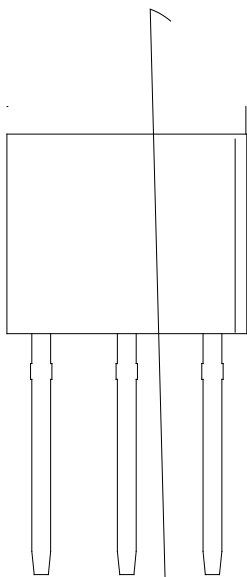
STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=60A$ $t_p=380\mu s$	$T_j=25$	1.4	V
V_{TO}	Threshold voltage	$T_j=150$	0.72	V
R_D	Dynamic resistance	$T_j=150$	10	$m\Omega$
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	10	μA
I_{RRM}		$T_j=150$		

ORDERING INFORMATION

T	40	50	H	-6	Z
Triacs					Z:TO-3P(Ins)
<u>IT(RMS):40A</u>					
	<u>50:IGT1-3 50mA</u>			<u>6:VDRM /VRRM 600V</u>	
			<u>High junction temperature</u>		

MARKING



T4050H-6Z

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

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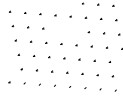
ORDERING INFORMATION

Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T4050H-6Z	600	50	TO-3P(Ins)	30	Tube

Document Revision History

Date	Revision	Changes
Apr.10, 2023	A.1.0	Last updated
Oct.16, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

PACKAGE MECHANICAL DATA



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