



T2050H-6F 20A TRIAC

Rev.A.1.1

DESCRIPTION:

The T2050H-6F 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, T2050H-6F provides a very high switching capability up to junction temperatures of 150°C. By using an external plastic package, T2050H-6F provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-220F 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 ($T_j=25^\circ\text{C}$)	V_{DRM}	600	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	600	V



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

ELECTRICAL CHARACTERISTICS ($T_j=25\text{ }^{\circ}\text{C}$ 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	V
V_{GD}	$V_D=V_{DRM}\ T_j=150\text{ }^{\circ}\text{C}$ $R_L=3.3k\Omega$	- -	MIN.	0.2	V
I_{GS}	$I_G=1/2I_{GT}$	-	MAX.	70	mA



ORDERING INFORMATION

T	20	50	H	-6	F
Triacs					F:TO-220F(Ins)
IT(RMS):20A					
	50:IGT1-3 ≤ 50mA			6:VDRM /VRRM ≥ 600V	
			High junction temperature		

MARKING

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

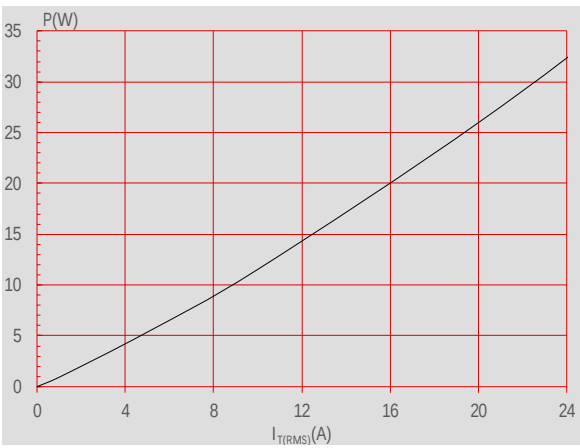


FIG.3: Surge peak on-state current versus number of cycles

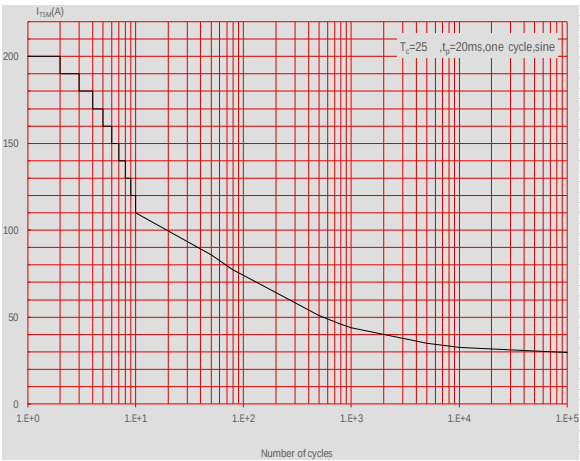


FIG.2: RMS on-state current versus case temperature

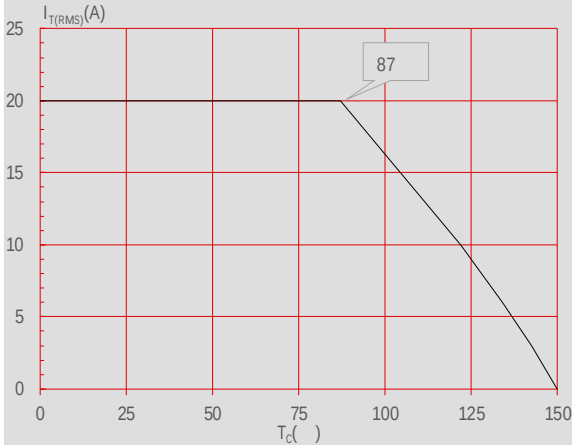


FIG.4: On-state characteristics

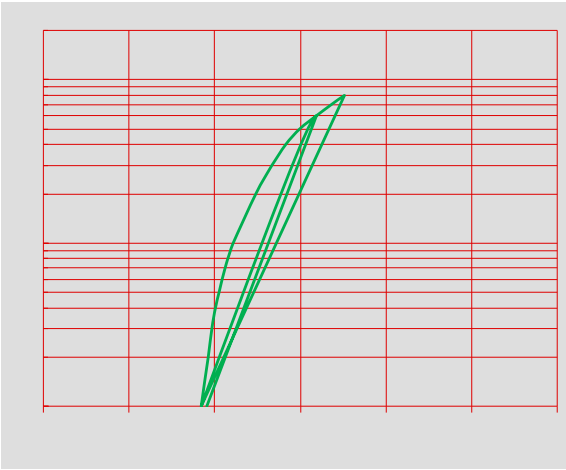
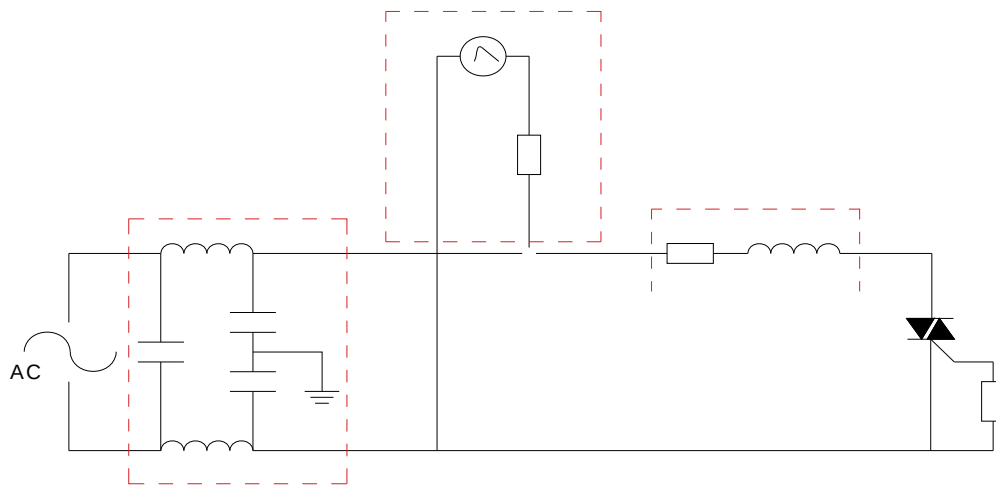


FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards





ORDERING INFORMATION

Order code	Voltage V _{DRM} /V _{R_{RM}} (V)	IGT(mA)	Package	Base qty. (pcs)
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