



T0650H-8E 6A TRIAC

Rev.A.1.0

DESCRIPTION:

The T0650H-8E triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in

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

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33$	- -	MAX.	50	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.	70	mA
				100	
I_H	$I_T=100mA$		MAX.	50	mA
dV/dt	$V_D=540V$ Gate Open $T_j=150$		MIN.	1200	V/s
$(dI/dt)_c$	$j=150$		MIN.	5	A/ms
t_{on}	$I_G=80mA$ $I_A=400mA$ $I_R=40mA$ $T_j=25$		TYP.	5	s
t_{off}				50	

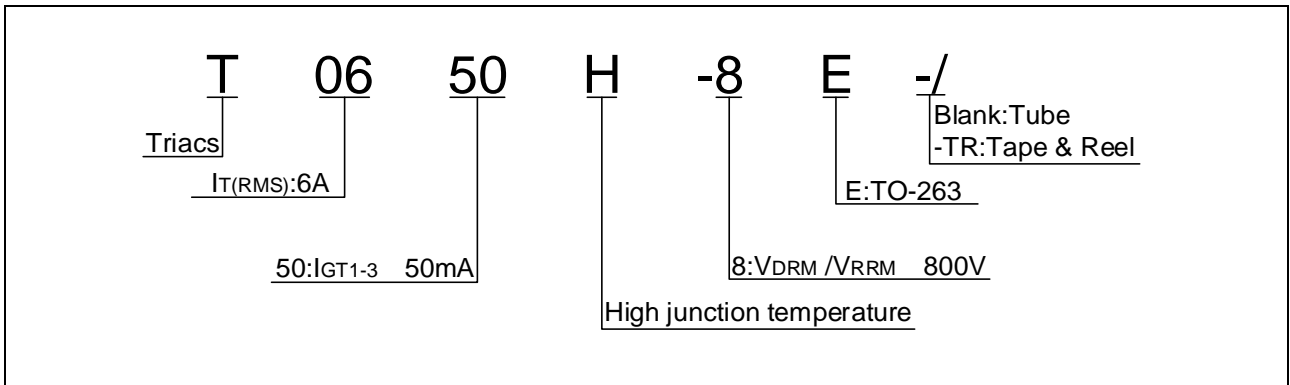
STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=8.5A$ $t_p=380$ s	$T_j=25$	1.4	V
V_{TO}	Threshold voltage	$T_j=150$	0.8	V
R_D	Dynamic resistance	$T_j=150$	63	
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	A
I_{RRM}		$T_j=150$	1	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	2.3	$^{\circ}W$
$R_{th(j-a)}$	junction to ambient (AC, in free air, $S=2cm^2$)	45	$^{\circ}W$

ORDERING INFORMATION



MARKING

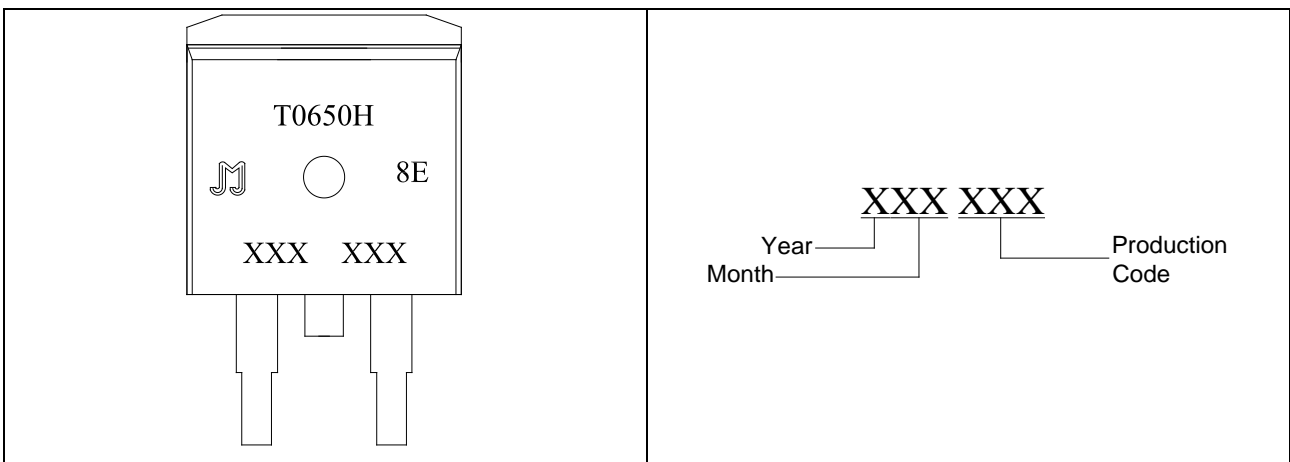


FIG.1 Maximum power dissipation versus RMS on-state current

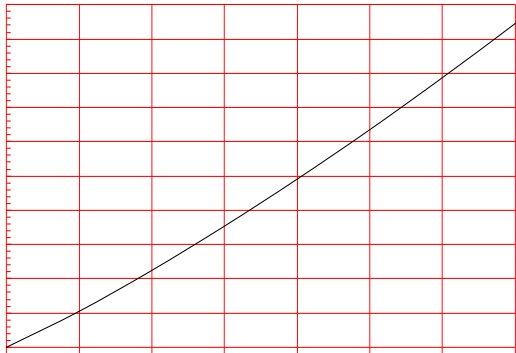


FIG.2: RMS on-state current versus case temperature

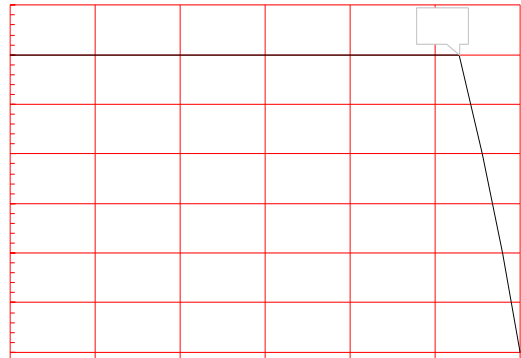


FIG.3: RMS on-state current versus ambient temperature (printed circuit board FR4,copper)

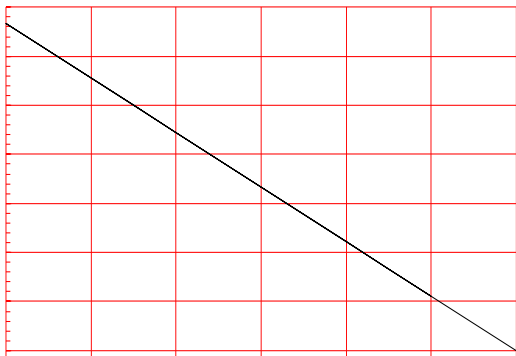


FIG.4: Surge peak on-state current versus number of cycles

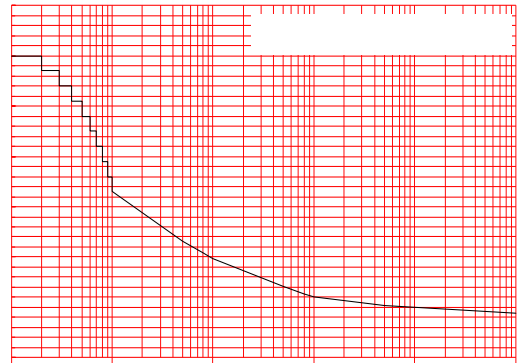


FIG.5: On-state characteristics

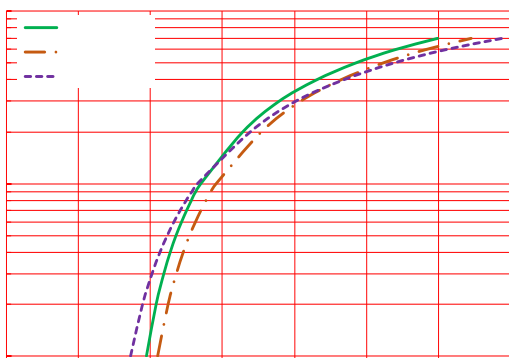


FIG.6: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$, and corresponding value of I^2t ($di/dt < 10$)

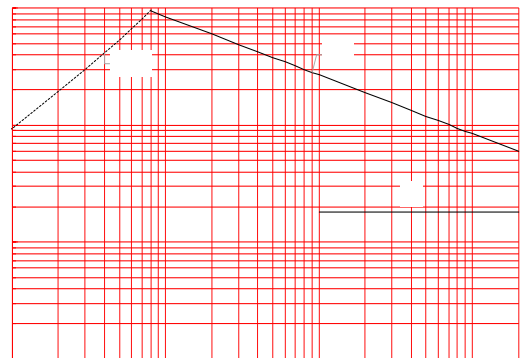


FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

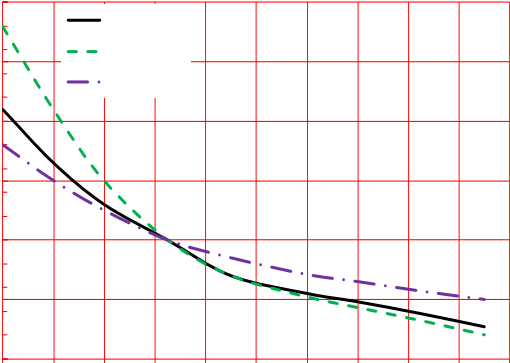
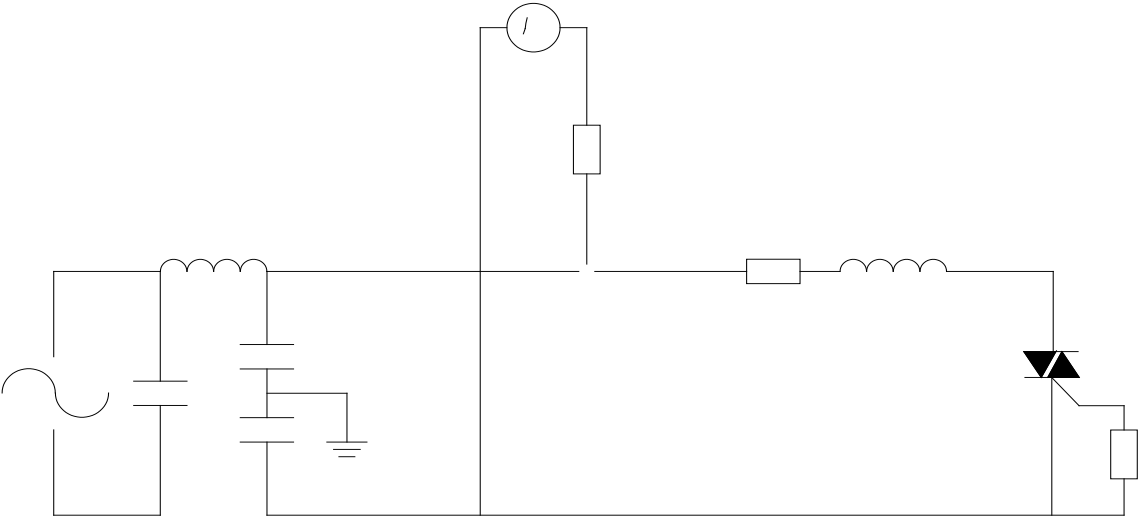


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T0650H-8E	800	50	TO-263	50	Tube
T0650H-8E-TR				800	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated

PACKAGE MECHANICAL DATA

DELIVERY MODE



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