



## T0850H-8K 8A TRIAC

Rev.A.1.1

### DESCRIPTION:

The T0850H-8K 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)	$V_{pp}$	3.5	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.	60	mA
				90	
$I_H$	$I_T=100mA$		MAX.	55	mA
dV/dt	$V_D=540V$ Gate Open $T_j=150$		MIN.	2500	V/s
(dI/dt) <sub>c</sub>	$j=150$		MIN.	8	A/ms
$t_{on}$	$I_G=80mA$ $I_A=400mA$ $I_R=40mA$ $T_j=25$		TYP.	5	s
$t_{off}$				50	

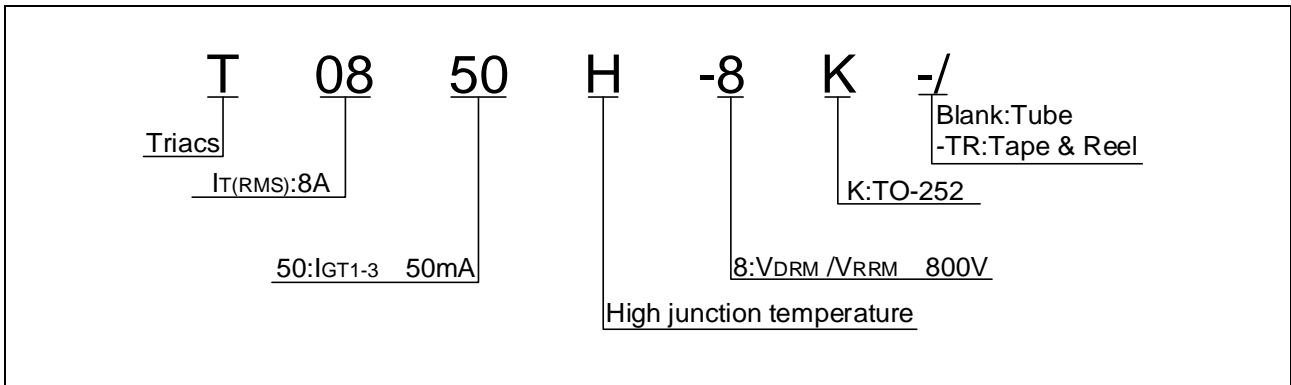
**STATIC CHARACTERISTICS**

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=11A$ $t_p=380$ s	$T_j=25$	1.4	V
$V_{TO}$	Threshold voltage	$T_j=150$	0.78	V
$R_D$	Dynamic resistance	$T_j=150$	55	
$I_{DRM}$	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	A
$I_{RRM}$		$T_j=150$	1	mA

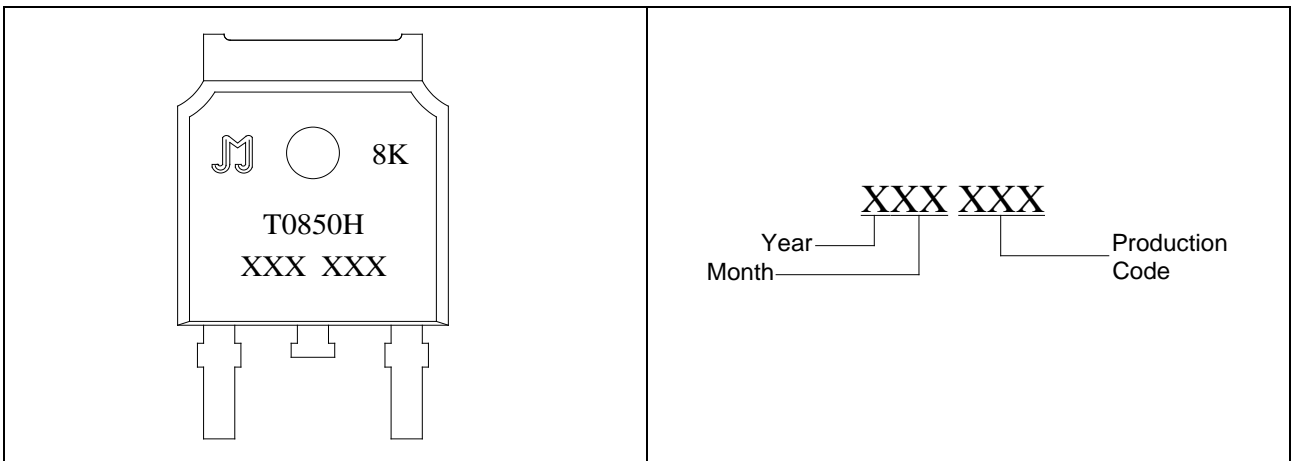
**THERMAL RESISTANCES**

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.7	$^{\circ}W$
$R_{th(j-a)}$	junction to ambient (AC)	70	$^{\circ}W$

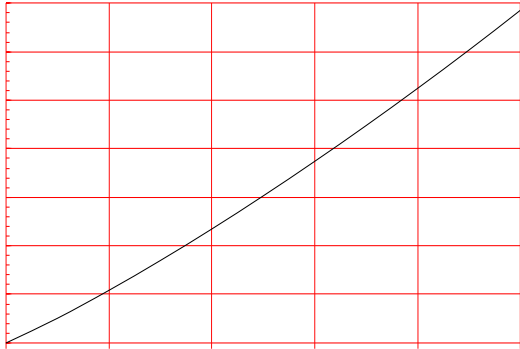
ORDERING INFORMATION



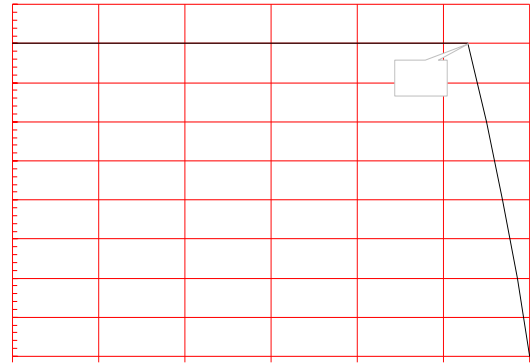
MARKING



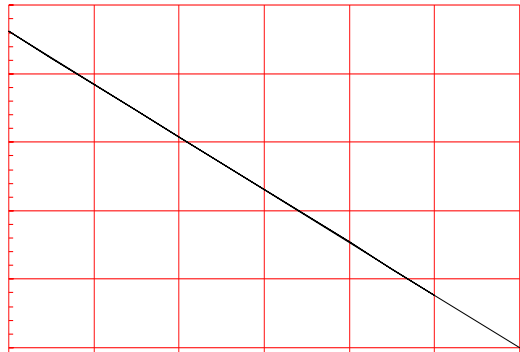
**FIG.1** Maximum power dissipation versus RMS on-state current



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

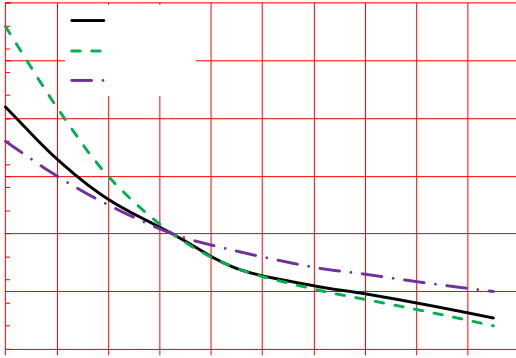


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



## ORDERING INFORMATION

Order code	Voltage $V_{DRM}/V_{RRM}$ (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		I - II - III			
T0850H-8K	800	50	TO-252	80	Tube
T0850H-8K-TR				2,500	Tape & Reel

## Document Revision History

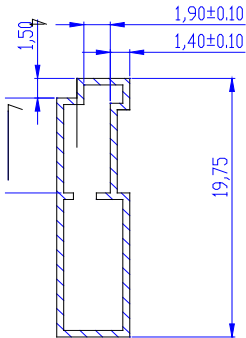
Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct.23, 2023	A.1.1	Change $R_{th(j-c)}$ & $R_{th(j-a)}$

## PACKAGE MECHANICAL DATA

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0		0.15	0		0.006
B	0.66		0.86	0.026		0.034
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1						
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
H	9.50		10.70	0.374		0.421
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065
V1		7°			7°	
V2	0°		6°	0°		6°



DELIVERY MODE



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