

AC

Rev.A.1.0

suitable for general purpose AC  
 as an ON/OFF function in  
 lighting regulation, induction motor  
 speed control operation in light dimmers,  
 etc. Compared to traditional triacs,  
 it has very high switching capability up to  
 150°C. Package TO-263 is RoHS

## RATINGS

Parameter	Symbol	Value	Unit
Temperature range	TC2_2re74	247.<0107>0.4junc)	001 TTd ( ) juncie
n2	is1-2		Rotem8

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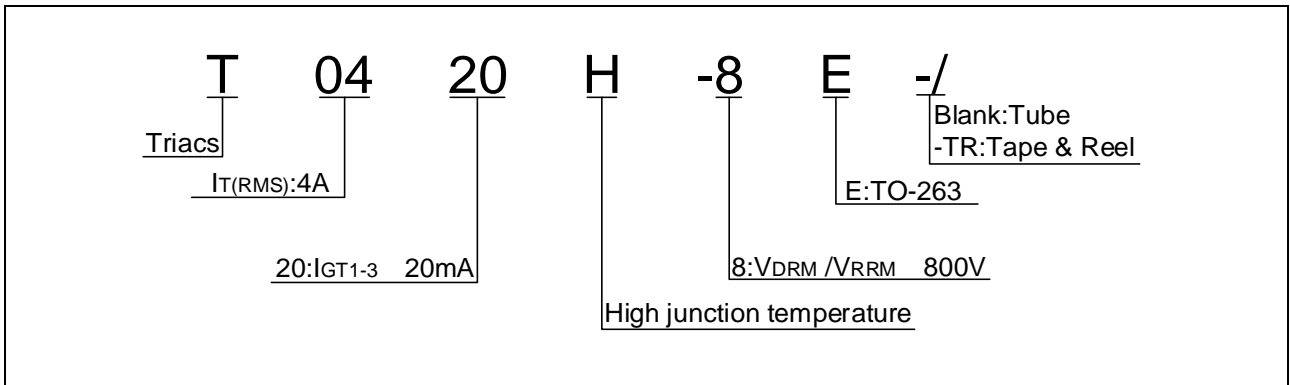
**ELECTRICAL CHARACTERISTICS** ( $T_j=25$  unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
$I_{GT}$	$V_D=12V$ $R_L=33$	- -	MAX.	20	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.	30	mA
				40	
$I_H$	$I_T=100mA$		MAX.	25	mA
$dV/dt$	$V_D=540V$ Gate Open $T_j=150$		MIN.	800	V/ $\mu s$
$(dI/dt)_c$	$(dV/dt)_c=20V/\mu s$ , $T_j=150$		MIN.	5	A/ms
$t_{on}$	$I_G=40mA$ $I_A=200mA$ $I_R=20mA$ $T_j=25$		TYP.	3	$\mu s$
$t_{off}$				30	

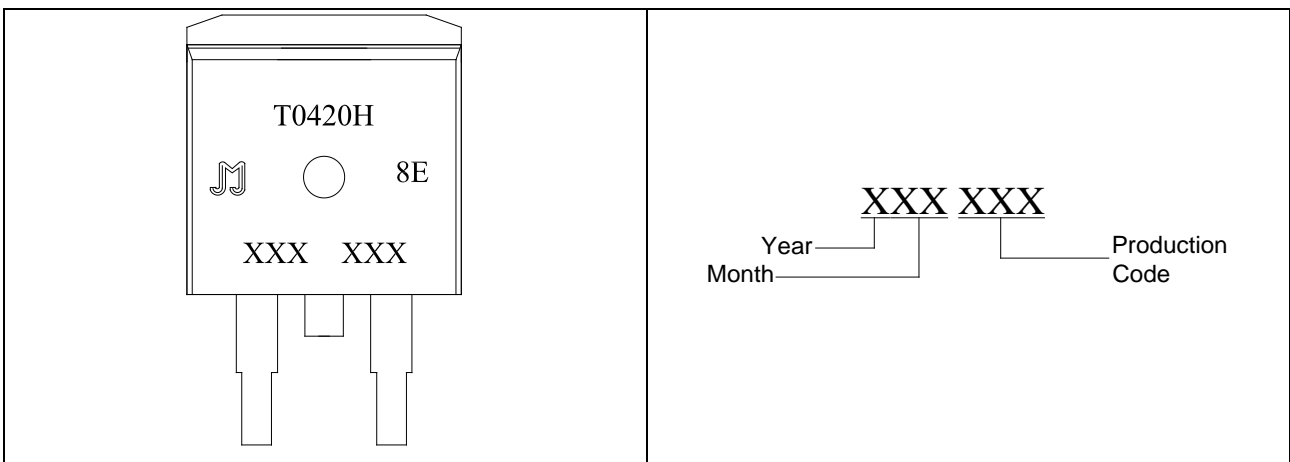
**STATIC CHARACTERISTICS**

Symbol	Parameter		Value(MAX.)	Unit
$V_{TM}$	$I_{TM}=5.5A$ $t_p=380\mu s$	$T_j=25$	1.4	V
$V_{TO}$	Threshold voltage	$T_j=150$	0.6	V
$R_D$	Dynamic resistance	$T_j=150$	129	m
$I_{DRM}$	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$ A50	266.4	A

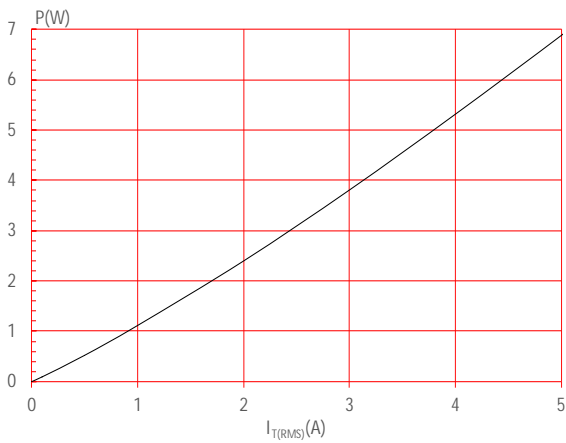
ORDERING INFORMATION



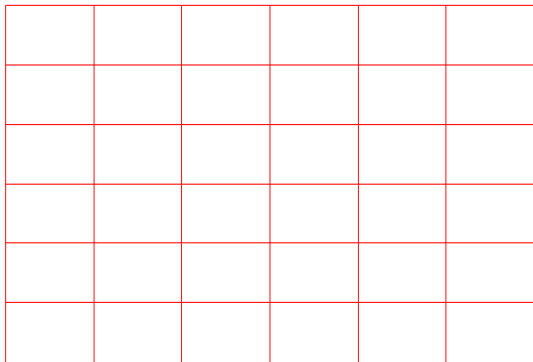
MARKING



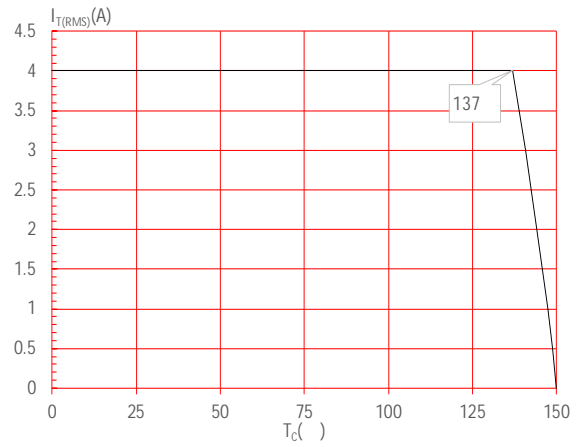
**FIG.1** Maximum power dissipation versus RMS on-state current



**FIG.3:** RMS on-state current versus ambient temperature (printed circuit board FR4,copper thickness:35 $\mu$ m)(full cycle)



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



**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

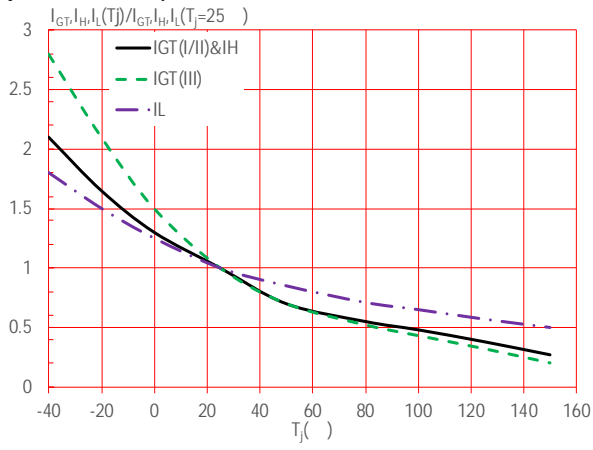
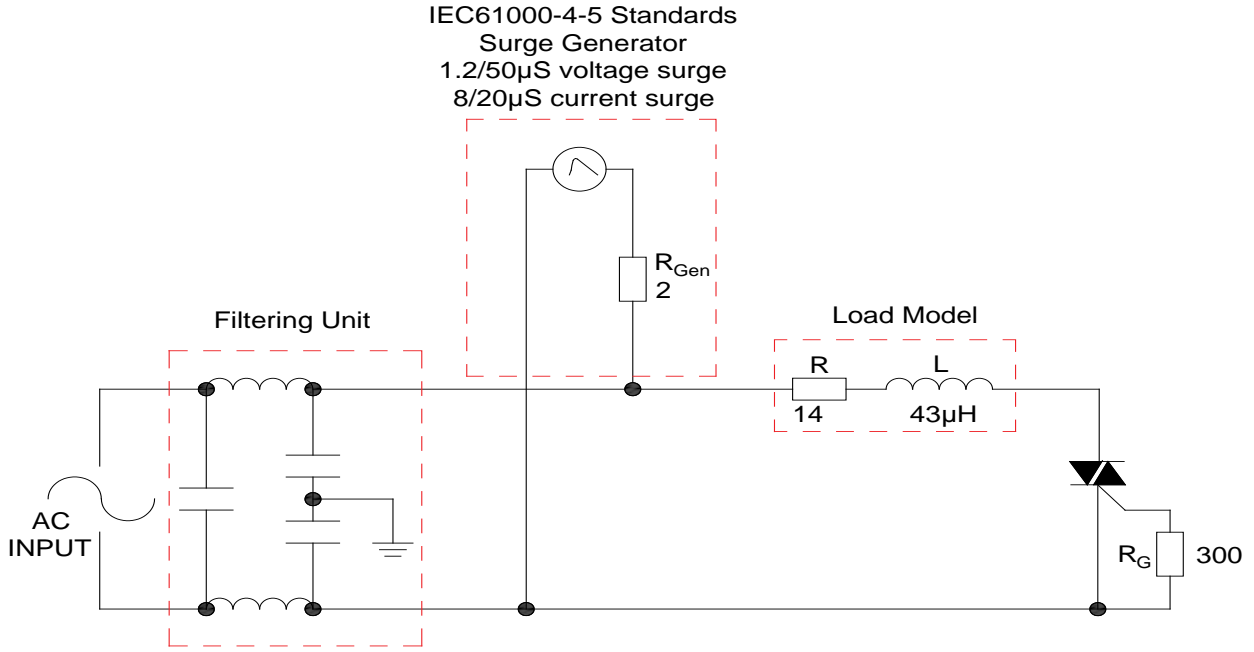


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



### SOLDERING PARAMETERS

Reflow Condition	Pb-Free assembly (see figure at right)
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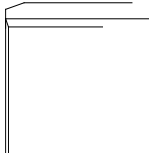
Pre  
Heat

ORDERING INFORMATION

Order code	Voltage V <sub>DRM</sub> /V <sub>RRM</sub> (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
T0420H-8E	800	20	TO-263	50	Tube
T0420H-8E-TR				800	Tape & Reel

8E2 67415f 3158650.88 56.64\* 76 70.32 0.388 >>BDC 247 67415f 31950.88 56.64 q 57.415f 311067.8.88 5

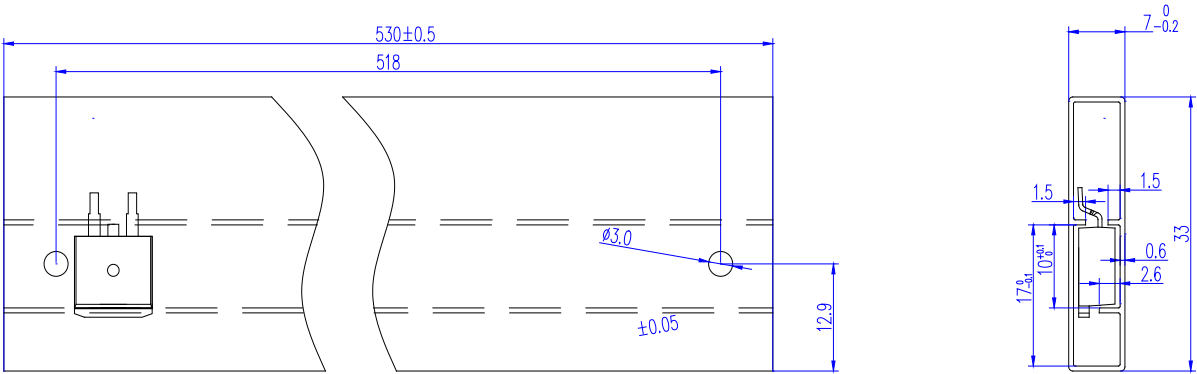
PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.90		10.20	0.390		0.402
B	14.70		15.80	0.579		0.622
C	9.40		9.60	0.37		0.378
D	2.40			0.094		
E	1.20		1.50	0.047		0.059
F	0.75		0.85	0.029		0.033
G			1.50			
H	4.40		4.70	0.173		0.185
J	2.30		2.70	0.091		0.106
K	0.38		0.55	0.015		0.022
L	0		0.25			
M	1.25		1.35			




DELIVERY MODE



PACKAGE	OUTLINE	
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