



T1650H-6E 16A TRIAC

Rev.A.1.1

DESCRIPTION:

The T1650H-6E

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.8)	V_{pp}	4	kV
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ELECTRICAL CHARACTERISTICS (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}	$V_D=V_{DRM}$ $T_j=150$ $R_L=3.3k\Omega$	- -	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	-	MAX.	80	mA
				100	
I_H	$I_T=500mA$		MAX.	60	mA
dV/dt	$V_D=400V$ Gate Open $T_j=150$		MIN.	2000	V/ μs
$(dI/dt)_c$	$(dV/dt)_c=20V/\mu s$, $T_j=150$		MIN.	25	A/ms
t_{on}	$I_G=80mA$ $I_A=400mA$ $I_R=40mA$ $T_j=25$		TYP.	12	μs
t_{off}				80	

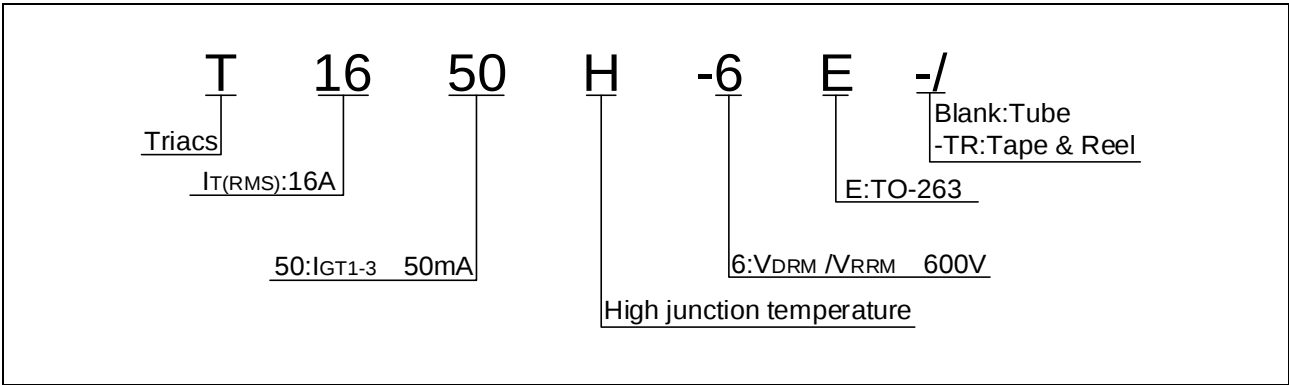
STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=22.5A$ $t_p=380\mu s$	$T_j=25$	1.4	V
V_{TO}	Threshold voltage	$T_j=150$	0.75	V
R_D	Dynamic resistance	$T_j=150$	27	$m\Omega$
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$	$T_j=25$	5	μA
I_{RRM}		$T_j=150$	1.5	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.2	$^{\circ}W$
$R_{th(j-a)}$	junction to ambient (AC)	45	$^{\circ}W$

ORDERING INFORMATION



MARKING



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

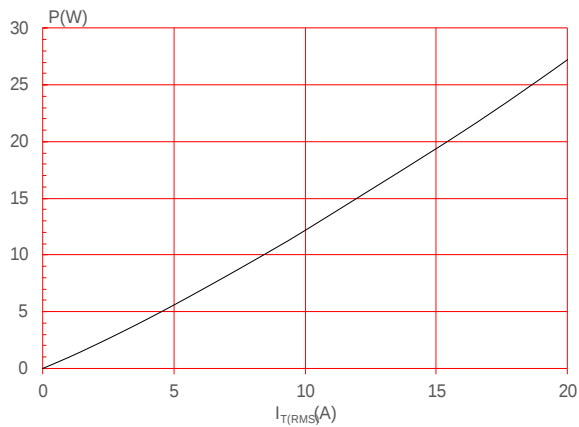
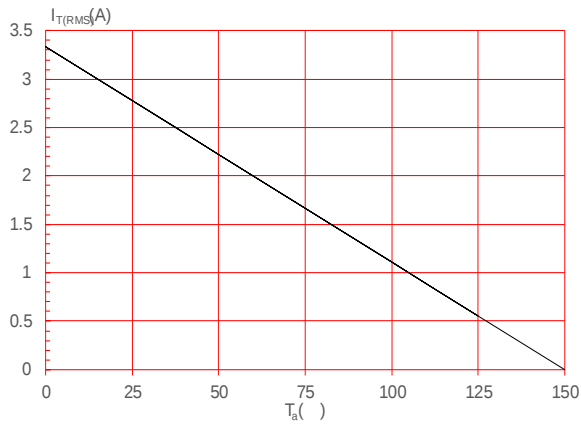
FIG.3: RMS on-state current versus ambient temperature (printed circuit board FR4,copper thickness:35 μ m)(full cycle)

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

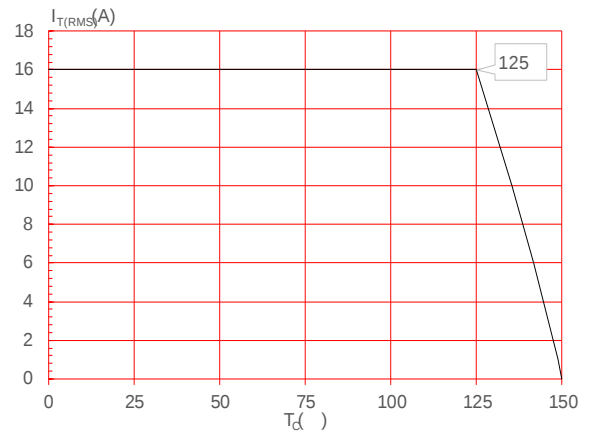


FIG.4: Surge peak on-state current versus number of cycles

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

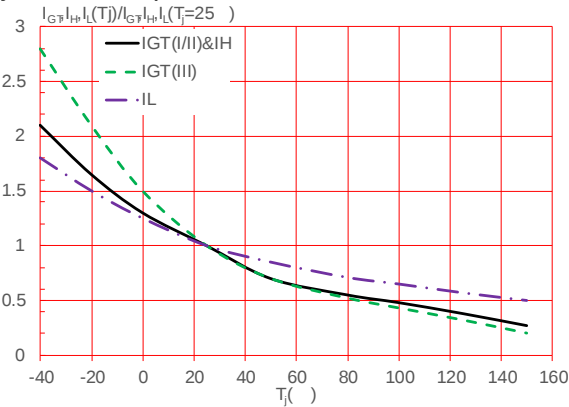
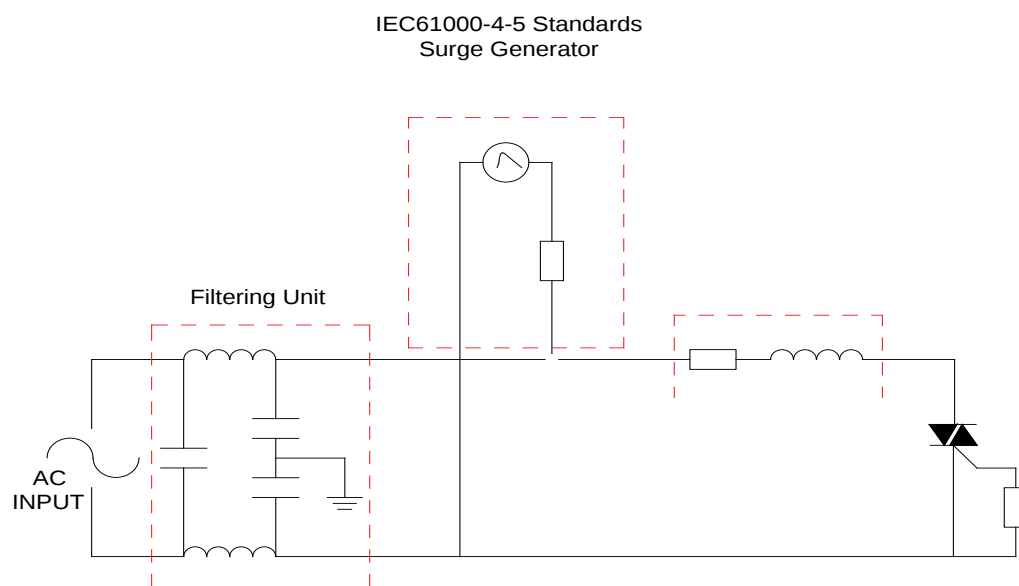
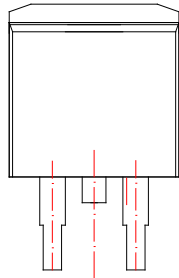


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards

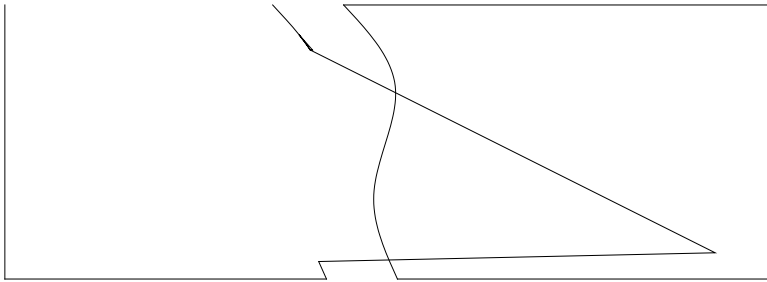


PACKAGE MECHANICAL DATA



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	0.370		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

DELIVERY MODE



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