

Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.7)	V_{pp}	1	kV
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ELECTRICAL CHARACTERISTICS ($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V$ $R_L=33\Omega$	- -	MAX.	25	mA
				70	
V_{GT}		ALL	MAX.	1	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125$ $R_L=3.3k\Omega$	ALL	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	- -	MAX.	40	mA
				90	
I_H	$I_T=500mA$		MAX.	40	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	200	V/ μs
$(dV/dt)_c$	$(dI/dt)_c=5A/ms$, $T_j=110$		MIN.	8	V/ μs
t_{on}	$I_G=80mA$ $I_A=400mA$ $I_R=40mA$		TYP.	5	μs
t_{off}	$T_j=25$			30	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=15A$ $t_p=380\mu s$	$T_j=25$	1.6	V
V_{TO}	Threshold voltage	$T_j=125$ η_D F€ Đ	0.8	V

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

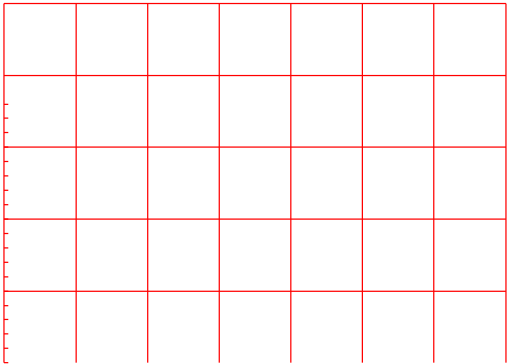
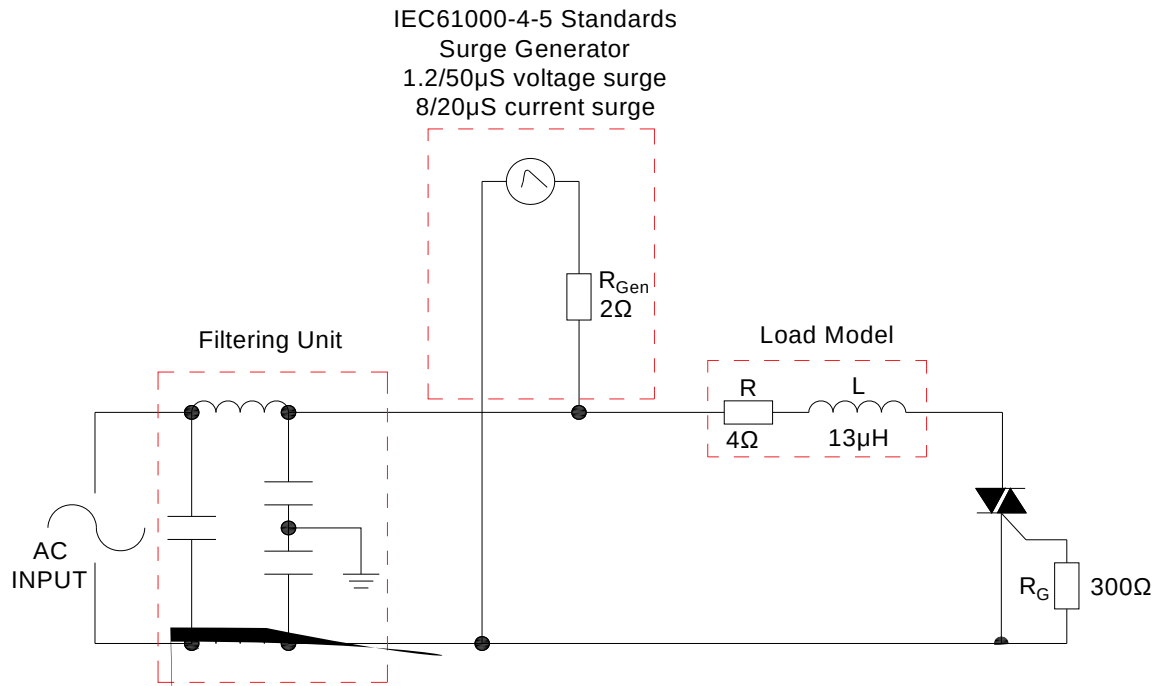


FIG.2: RMS on-state current versus case temperature

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



ORDERING INFORMATION

Order code	Voltage $V_{\text{DRM}}/V_{\text{RRM}}$ (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		$I_{\text{GT}} - t$	t			
JST138F-800F	800	25	70	TO-220F(Ins)	50	Tube

Document Revision History

Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated
Oct.15, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

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