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
				70	
V_{GT}		ALL	MAX.	1	V
V_{GD}	V_D=V_{DRM} T_j=125 R_L=3.3k	ALL	MIN.	0.2	V
I_L	I_G=1.2I_{GT}	- -	MAX.	50	mA
				100	
I_H	I_T=200mA		MAX.	60	mA
dV/dt	V_D=540V Gate Open T_j=125		MIN.	1000	V s
(dV/dt)c	(dI/dt)c=3.5A/ms, T_j=125		MIN.	12	9 V
t_{on}	I_G=80mA I_A=400mA I_R=40mA T_j=25		TYP.	5	s
t_{off}				30	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	I_{TM}=11A t_p=380 s	T_j=25	1.5	V
V_{TO}	Threshold voltage	T_j=125	0.81	V
R_D	Dynamic resistance	T_j=125	44	P
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}	T_j=25	5	A
I_{RRM}		T_j=125	0.35	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	1.6	/W
$R_{th(j-a)}$	junction to ambient (AC, in free air, S=2cm		

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

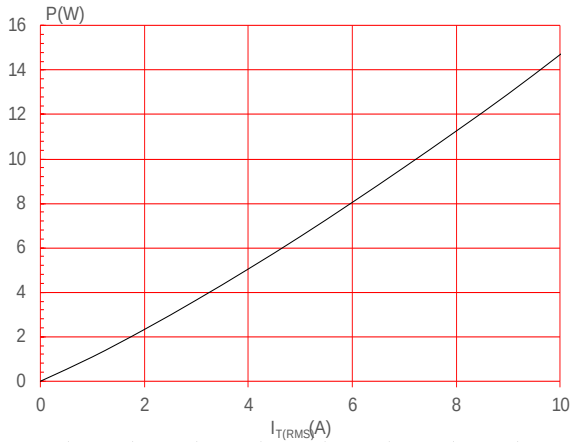


FIG.2: RMS on-state current versus case temperature

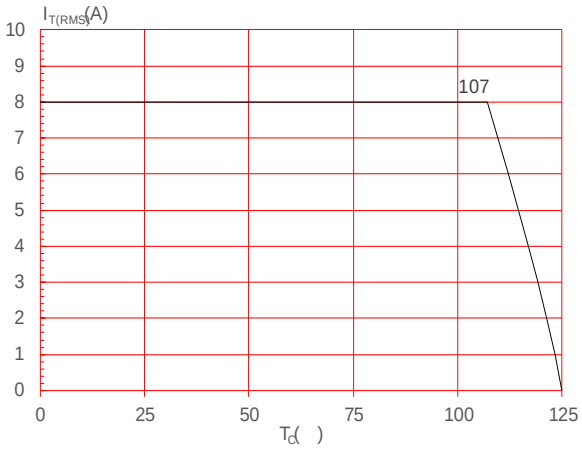


FIG.3: RMS on-state current versus ambient temperature (printed circuit board FR4,copper W K L F N Q H V V P I X O O F \ F O H

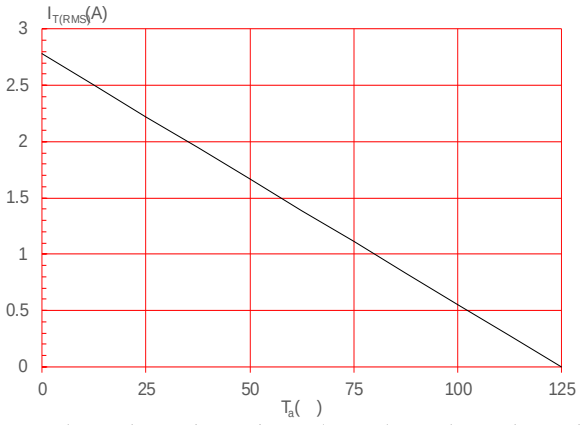


FIG.4: Surge peak on-state current versus number of cycles

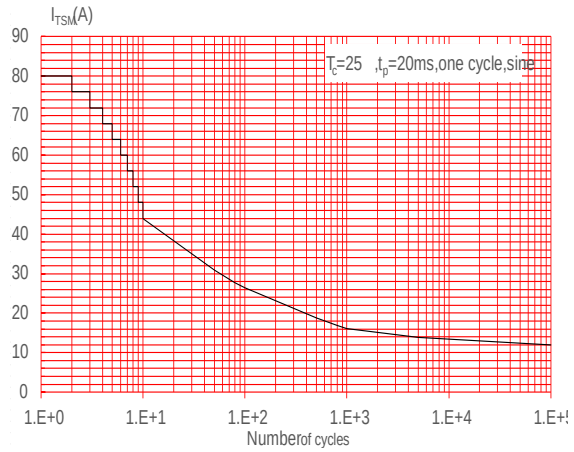


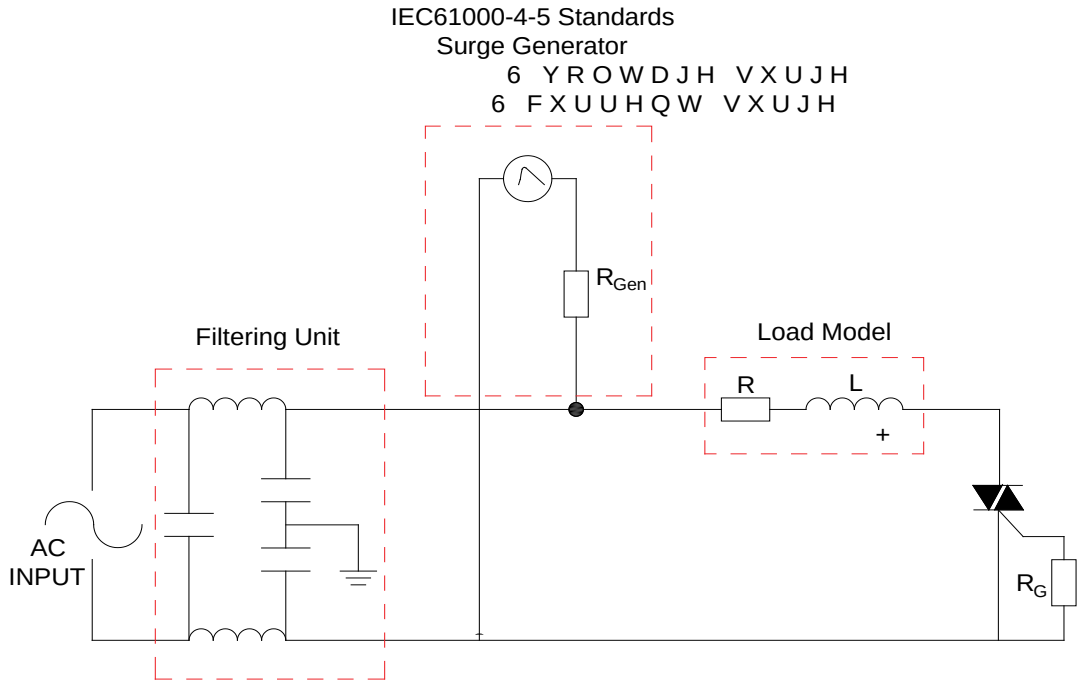
FIG.5: On-state characteristics

FIG.6: Non-repetitive surge peak on-state current for a sinusoidal pulse with width t_p<20ms, and corresponding value of I^2t

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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
		- -				
JST08E-800B	800	50	70	TO-263	50	Tube
JST08E-800B-TR					800	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated
Oct.20, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA

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DELIVERY MODE

