

($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V R_L=33$	- -	MAX.	10	mA
				25	
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.	25	mA
				35	
I_H	$I_T=500mA$		MAX.	25	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	100	V s
(dV/dt) _c	(dI/dt) _c =5A/ms, $T_j=110$		MIN.	5	
t_{on}	$I_G=40mA I_A=200mA I_R=20mA$ $T_j=25$		TYP.	3	s
t_{off}				30	

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=15A t_p=380 s$	$T_j=25$	1.6	V
V_{TO}	Threshold voltage	$T_j=125$	0.8	V
R_D	Dynamic resistance	$T_j=125$	41	
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	5	A
I_{RRM}		$T_j=125$	0.5	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	3	/W
$R_{th(j-a)}$	junction to ambient (AC)	100	/W

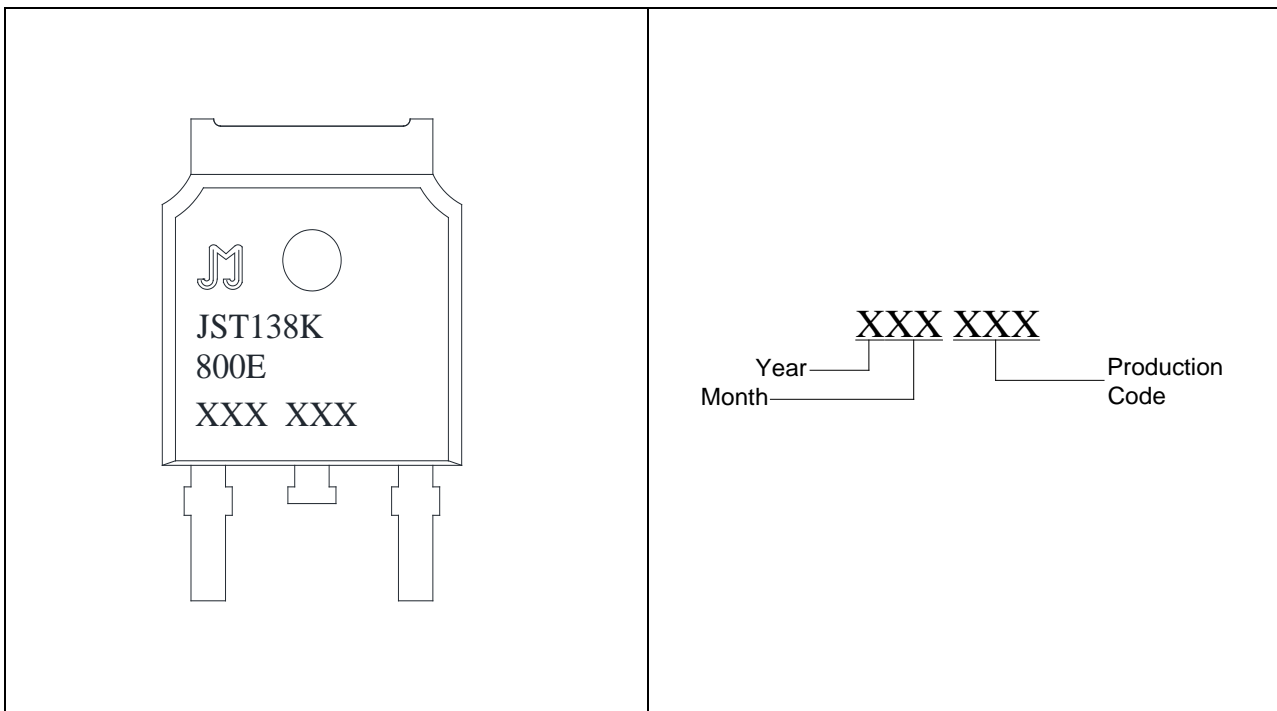
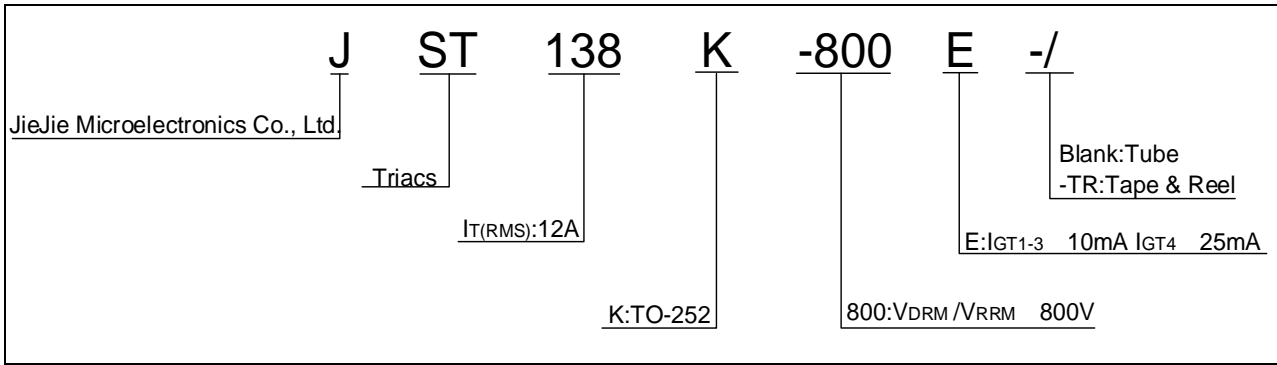


FIG.1 Maximum power dissipation versus RMS on-state current

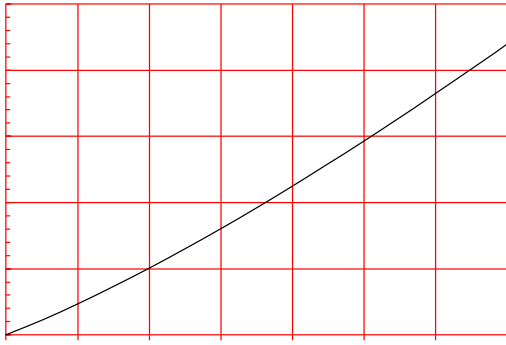


FIG.2: RMS on-state current versus case temperature

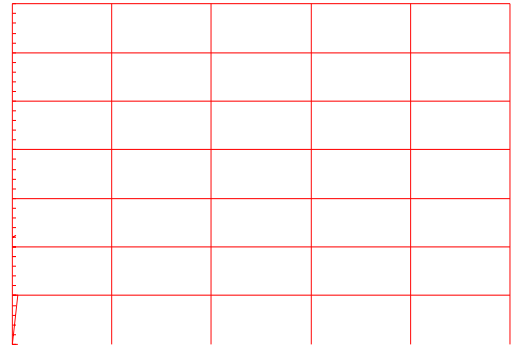


FIG.7: Relative variations of gate trigger current, holding current and latching current versus junction temperature

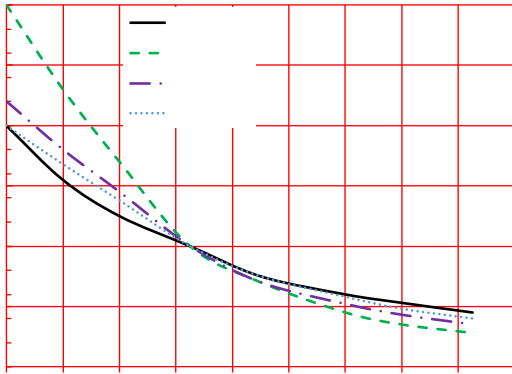
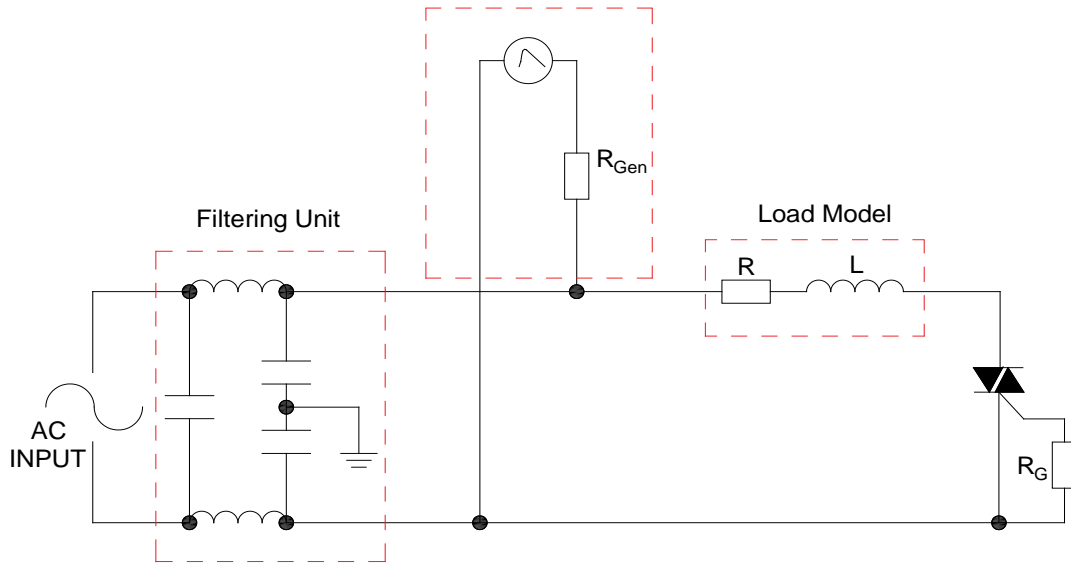
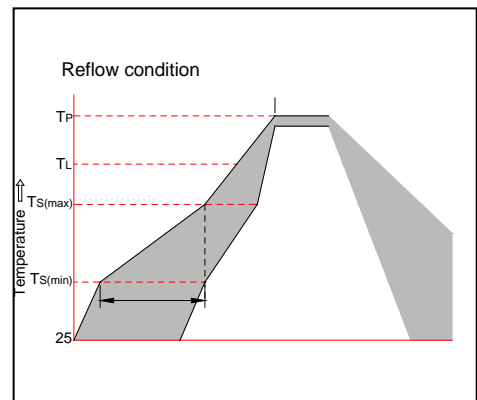


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards

IEC61000-4-5 Standards
Surge Generator



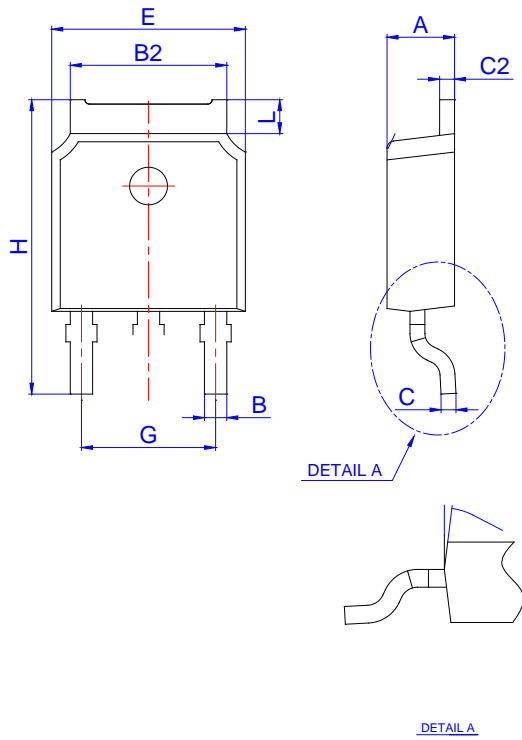
Reflow Condition		Pb-Free assembly (see figure at right)
Pre Heat	-Temperature Min (T _{s(min)})	+150
	-Temperature Max (T _{s(max)})	+200
	Time (Min to Max) (ts)	60-180 secs.
	Temperature Rate (T _L) to peak	3 /sec. Max
	Temperature Ramp-up Rate	3 /sec. Max
	Temperature (T _L) (us)	+217
	Temperature (t _L)	60-150 secs.
		+260(+0/-5)
	Actual	20-40secs.
		6 /sec. Max
		8 min. Max



Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)		Package	Base qty. (pcs)	Delivery mode
		-	-			
JST138K-800E	800	10	25	TO-252	80	Tube
JST138K-800E-TR					2,500	Tape & Reel

Document Revision History


Date	Revision	Changes
Apr.14, 2023	A.1.0	Last updated



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°

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