

Average gate power dissipation ($T_j=125$)	$P_{G(AV)}$	0.1	W
Peak gate power	P_{GM}	2	W
Peak pulse voltage ($T_j=25$; non-repetitive, off-state; FIG.8)	V_{pp}	2.5	kV

($T_j=25$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12V R_L=33$	-	MAX.	10	mA
V_{GT}		-	MAX.	1.3	V
V_{GD}	$V_D=V_{DRM} T_j=125$ $R_L=3.3K$	-	MIN.	0.15	V
I_L	$I_G=1.2I_{GT}$		MAX.	40	mA
				20	
I_H	$I_T=100mA$		MAX.	20	mA
dV/dt	$V_D=540V$ Gate Open $T_j=125$		MIN.	1000	V/s
$(dI/dt)_c$	$(dV/dt)_c=15$ $T_j=125$		MIN.	2	A/ms
t_{on}	$I_G=20mA I_A=200mA I_R=20mA$ $T_j=25$		TYP.	2.5	s
t_{off}				25	
V_{CL}	$I_{CL}=0.1mA t_p=1ms$		MIN.	950	V

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=1.1A t_p=380$ s	$T_j=25$	1.35	V
V_{TO}	Threshold voltage	$T_j=125$	0.8	V
R_D	Dynamic resistance	$T_j=125$	385	
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25$	2	mA
I_{RRM}		$T_j=125$	0.2	mA

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	25	/W
$R_{th(j-a)}$	junction to ambient (AC)	150	/W

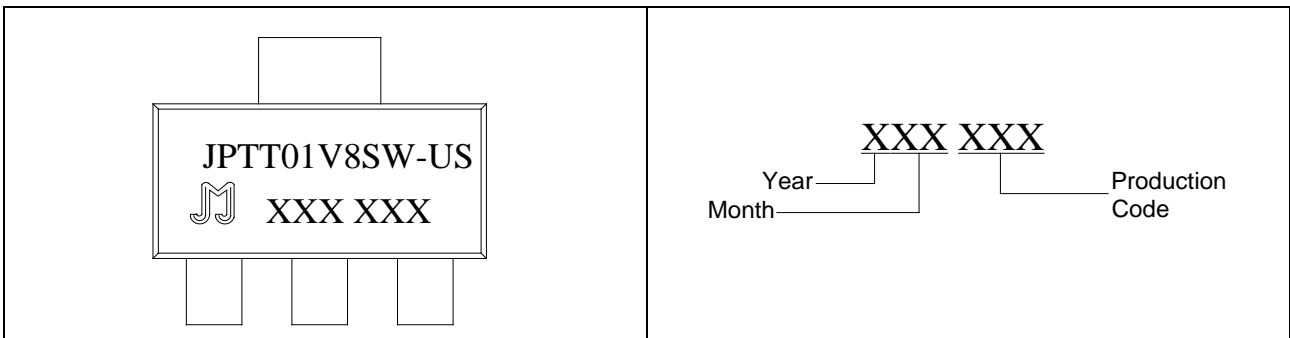
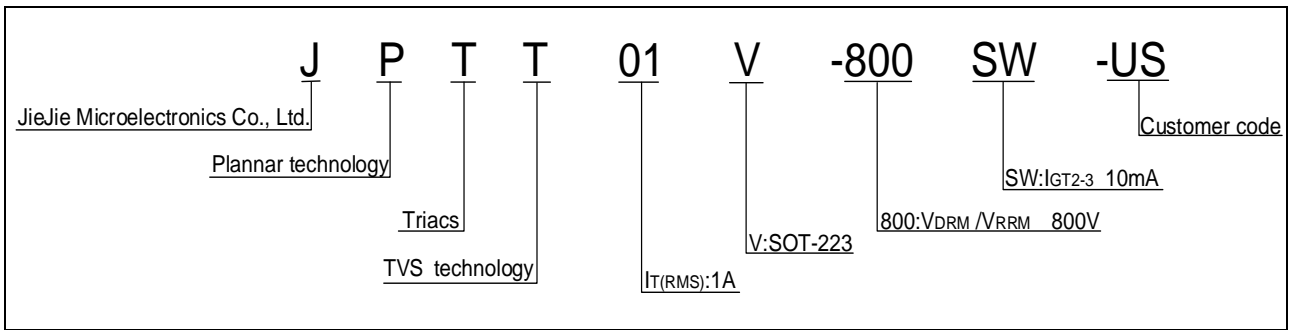


FIG.1 Maximum power dissipation versus RMS on-state current

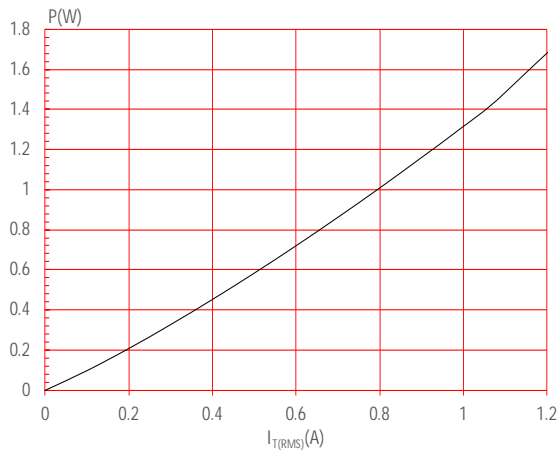


FIG.2: RMS on-state current versus case temperature

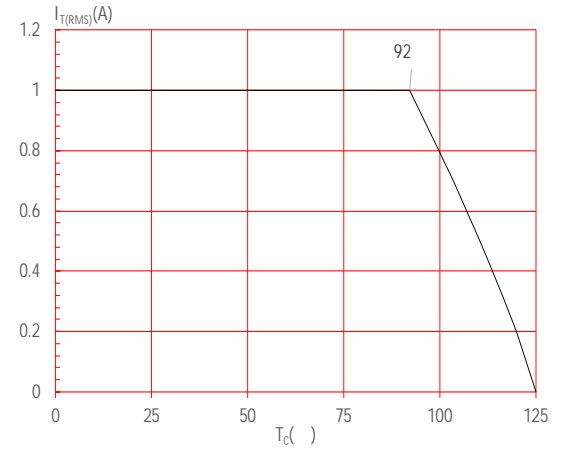


FIG.3: RMS on-state current versus ambient temperature (printed circuit board FR4,copper)

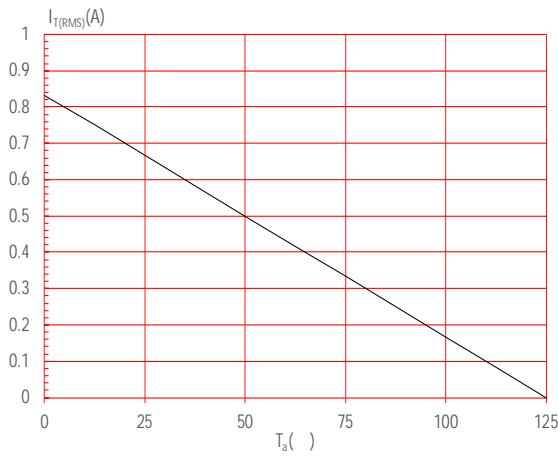


FIG.4: Surge peak on-state current versus number of cycles

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

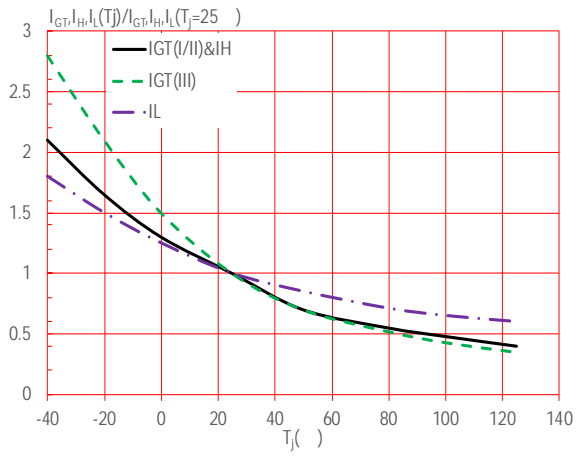
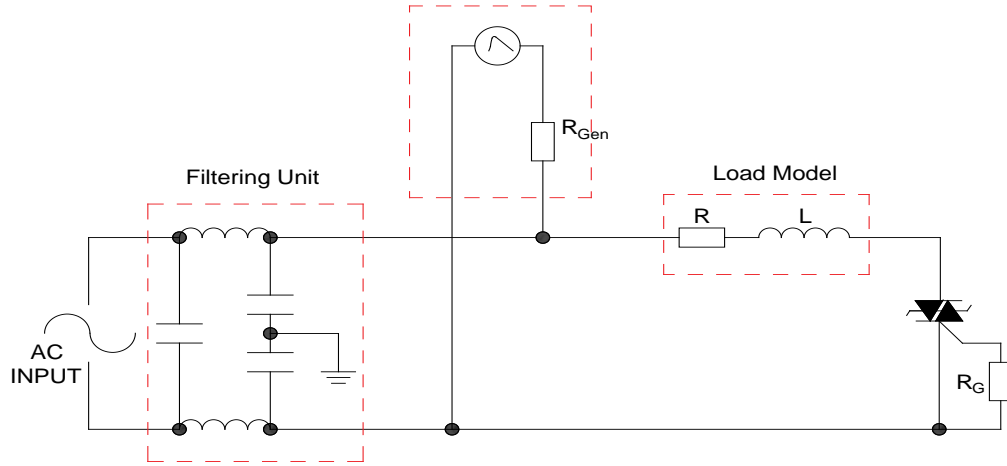


FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards

IEC61000-4-5 Standards
Surge Generator

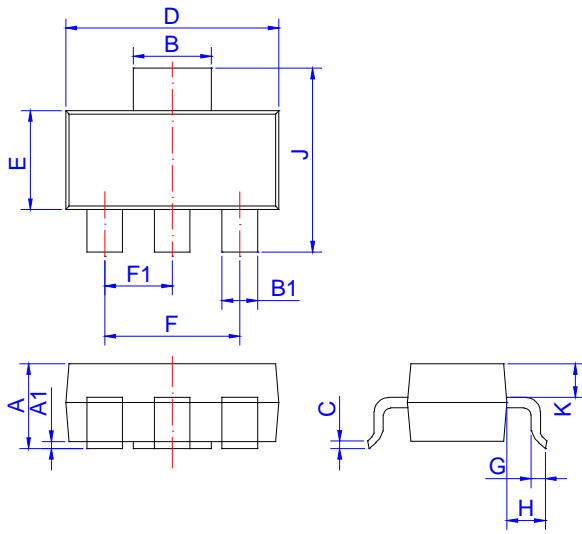


Reflow Condition		Pb-Free assembly (see figure at right)	
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150	
	-Temperature Max($T_{s(max)}$)	+200	T28e

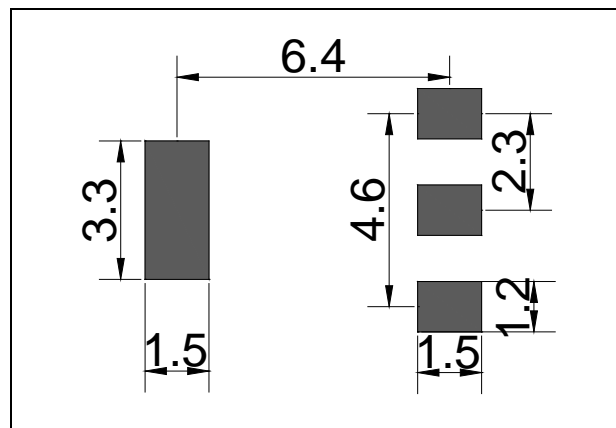
Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JPTT01V-800SW-US	800	10	SOT-223	4,000	Tape & Reel

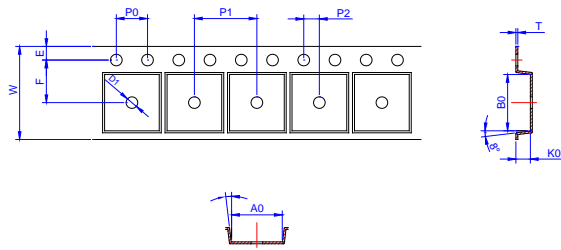
Document Revision History

Date	Revision	Changes
May.15, 2023	A-1	Last updated



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	1.5	1.6	1.8	0.059	0.063	0.071
A1	0.01	0.06	0.10	0.001	0.002	0.004
B	2.9	3.0	3.1	0.114	0.118	0.122
B1	0.6	0.7	0.8	0.024	0.028	0.031
C	0.22	0.26	0.32	0.009	0.010	0.013
D	6.3	6.5	6.7	0.248	0.256	0.264
E	3.3	3.5	3.7	0.130	0.138	0.146
F	4.4		4.8	0.173		0.189
F1	2.2		2.4	0.087		0.094
G	0.5		1.0	0.020		0.039
H	1.5	1.75	2.0	0.059	0.069	0.079
J	6.7	7.0	7.3	0.264	0.276	0.287
K	0.8	0.9	1.0	0.031	0.035	0.039






Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	-		12.30	-		0.482
E	1.65	1.75	1.85	0.065	0.069	0.073
F	5.45	5.50	5.55	0.215	0.217	0.219
D0		1.55	1.60		0.061	0.063
D1		-	-			
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	7.90	8.00	8.10	0.311	0.315	0.319
P2	1.95	2.00	2.05	0.077	0.079	0.081
10P0	39.80	40.00	40.20	1.567	1.575	1.583
A0	6.85	6.95	7.05	0.269	0.273	0.276
B0	7.15	7.25	7.35	0.280	0.284	0.288
K0	1.95	2.05	2.15	0.076	0.080	0.084
T	0.20	0.25	0.30	0.008	0.010	0.012

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