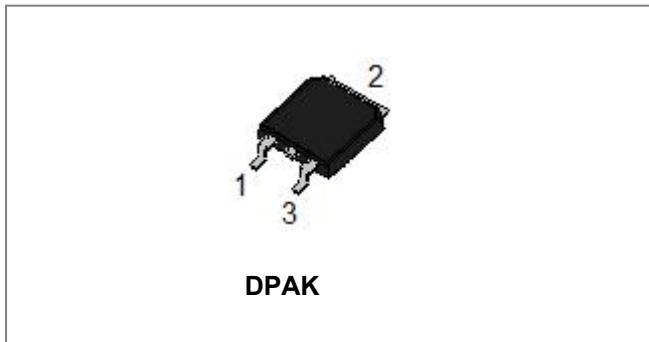
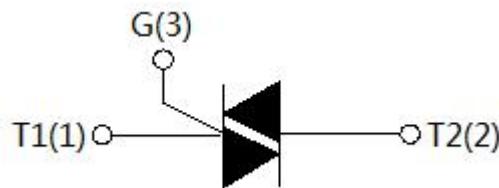


SST08K-800SW 8A TRIACs



Circuit Diagram



Description

With high ability to withstand the shock loading of large current, SST08K-800SW triacs provide high dv/dt rate with strong resistance to electromagnetic interface. With high commutation performances, 3 quadrants products especially recommended for use on inductive load.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Storage junction temperature range	T_{stg}	-	-40 - 150	°C
Operating junction temperature range	T_j	-	-40 - 125	°C
Repetitive peak off-state voltage($T_j=25^\circ\text{C}$)	V_{DRM}	-	800	V
Repetitive peak reverse voltage($T_j=25^\circ\text{C}$)	V_{RRM}	-	800	V
Non repetitive surge peak Off-state voltage	V_{DSM}	-	$V_{DRM} + 100$	V
Non repetitive peak reverse voltage	V_{RSM}	-	$V_{RRM} + 100$	V
RMS on-state current	$I_{(TRMS)}$	DPAK ($T_c=107^\circ\text{C}$)	8	A
Non repetitive surge peak on-state current (full cycle, $F=50\text{Hz}$)	I_{TSM}	-	80	A
I^2t value for fusing ($t_p=10\text{ms}$)	I^2t	-	32	A^2s
Critical rate of rise of on-state current ($I_G = 2 \times I_{GT}$)	dl/dt		50	$\text{A}/\mu\text{s}$
Peak gate current	I_{GM}	-	4	A
Average gate power dissipation	P_{GM}	-	1	W
Peak gate power	$P_{G(AV)}$	-	5	W

Electrical Characteristics ($T_j=25^\circ\text{C}$ unless otherwise specified)

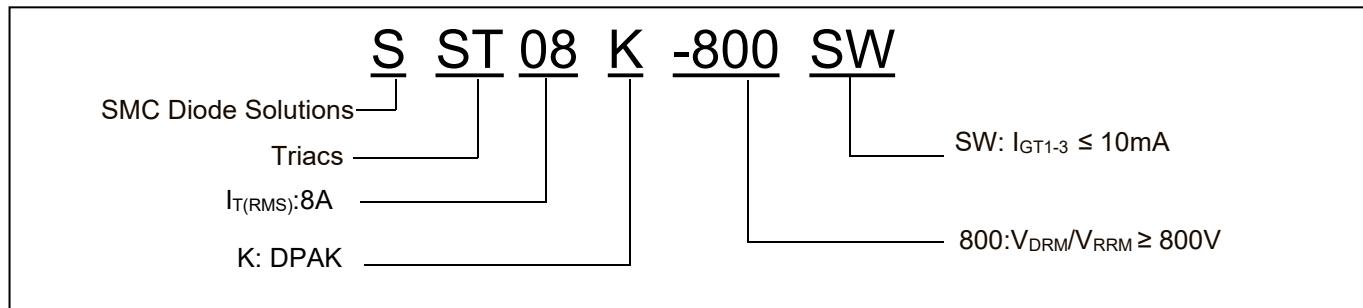
Symbol	Test Condition	Quadrant		Value	Unit
				SW	
I_{GT}	$V_D=12\text{V}$ $R_L=33\Omega$	I - II - III	MAX	10	mA
V_{GT}		I - II - III	MAX	1.5	V
V_{GD}	$V_D=V_{DRM}$ $T_j=125^\circ\text{C}$ $R_L=3.3\text{K}\Omega$	I - II - III	MIN	0.2	V
I_L	$I_G=1.2I_{GT}$	I - III	MAX	25	mA
		II		35	mA
I_H	$I_T=100\text{mA}$		MAX	20	mA
dV/dt	$V_D=2/3V_{DRM}$ Gate Open $T_j=125^\circ\text{C}$		MIN	200	V/ μA

Static Characteristics

Symbol	Condition	Max.	Units
V_{TM}	$I_T=11\text{A}$ $t_p=380\mu\text{s}$, $T_j=25^\circ\text{C}$	1.5	V
I_{DRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$, $T_j=25^\circ\text{C}$	5	μA
I_{RRM}	$V_D=V_{DRM}$ $V_R=V_{RRM}$, $T_j=125^\circ\text{C}$	1	mA

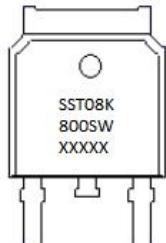
Thermal Resistances

Symbol	Condition	Value	Units
$R_{th(j-c)}$	Junction to case(AC) DPAK	2.1	$^\circ\text{C}/\text{W}$

Ordering Information


Device	Package	Shipping
SST08K-800SW	DPAK	2500pcs/ Reel

Marking Diagram



Where XXXXX is YYWWL

SST08K-800SW = Part name
YY = Year
WW = Week
L = Lot Number

Ratings and Characteristics Curves

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

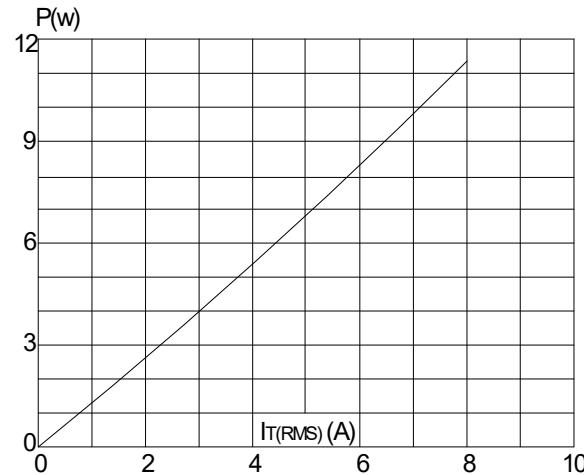


FIG.3: Surge peak on-state current versus number of cycles

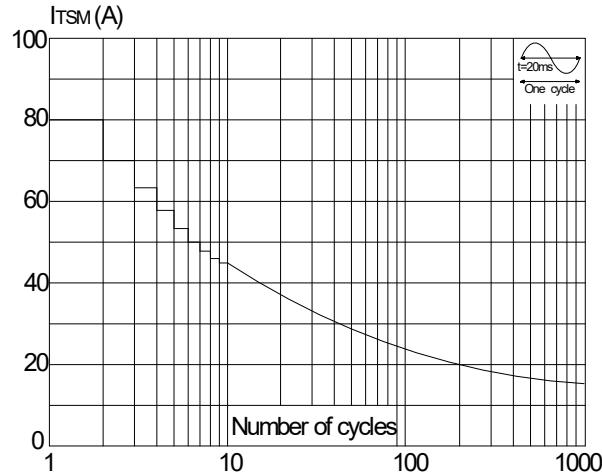


FIG.2: RMS on-state current versus case temperature

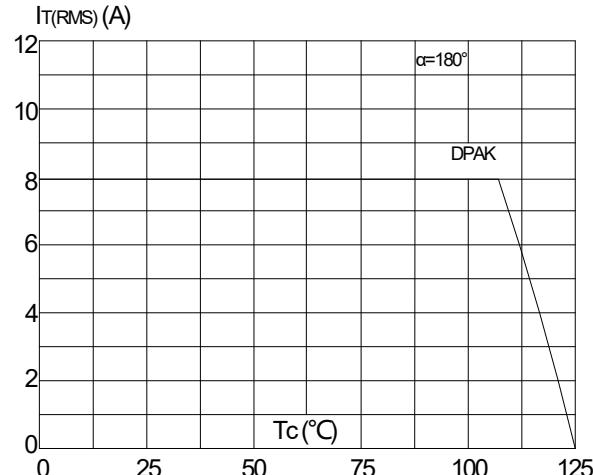


FIG.4: On-state characteristics (maximum values)

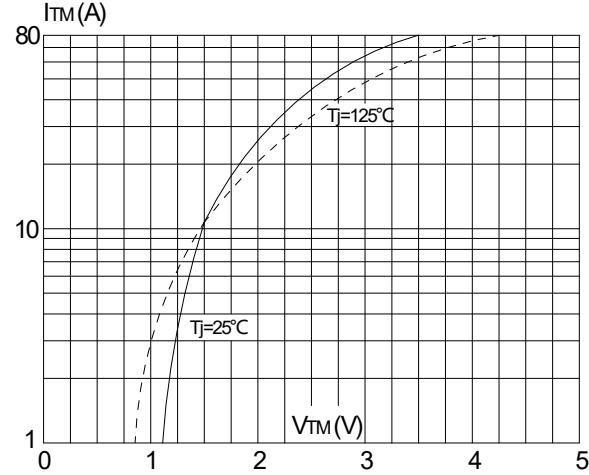


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $tp < 20ms$, and corresponding value of $\int t$ ($dl/dt < 50A/\mu s$)

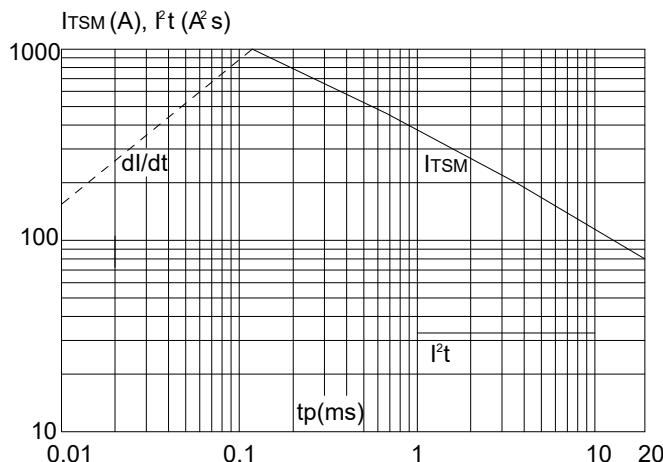
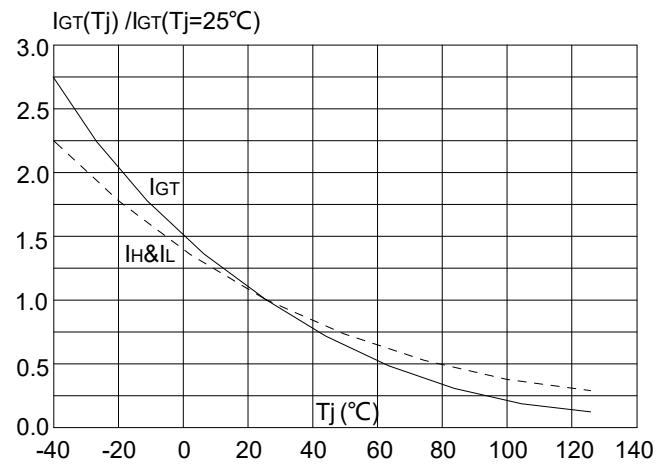


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature


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