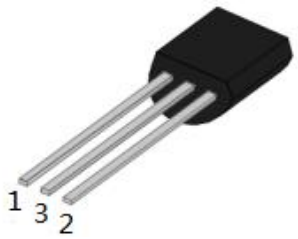
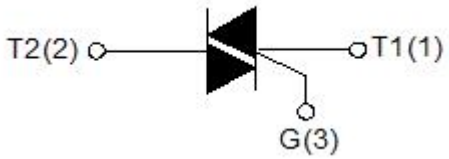
Technical Data
Data Sheet N2040, Rev.B

SST130U-600D 0.8A TRIACs



TO-92

Circuit Diagram



Description

With low holding and latching current, SST130 series triacs are especially recommended for use on middle and small resistance type power load.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Storage junction temperature range	T_{stg}	-	-40 - 150	℃
Operating junction temperature range	T_j	-	-40 - 125	℃
Repetitive peak off-state voltage (T_j=25℃)	V_{DRM}	-	600	V
Repetitive peak reverse voltage (T_j=25℃)	V_{RRM}	-	600	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	$I_{(TRMS)}$	TO-92(T_C=50℃)	0.8	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	I_{TSM}	-	400	A
I^2t value for fusing (tp=10ms)	I^2t	-	880	A^2s
Critical rate of rise of on-state current (I_G =2×I_{GT})	dI/dt	Ⅰ-Ⅱ-Ⅲ	50	A/us
		Ⅳ	20	
Peak gate current	I_{GM}	-	1	A
Average gate power dissipation	P_{GM}	-	0.1	W
Peak gate power	$P_{G(AV)}$	-	1	W

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Electrical Characteristics(Tj=25℃ unless otherwise specified)

Symbol	Test Condition	Quadrant		Value		Unit
				D	T	
I_{GT}	V_D=12V	Ⅰ-Ⅱ-Ⅲ	MAX	5	5	mA
		Ⅳ		10	5	
V_{GT}		ALL	MAX	1.3		V
V_{GD}	V_D=V_{DRM} T_j=125℃ R_L=3.3KΩ	ALL	MIN	0.2		V
I_L	I_G=1.2I_{GT}	Ⅰ-Ⅲ-Ⅳ	MAX	10	5	mA
		Ⅱ		20	15	
I_H	I_T=100mA		MAX	7	5	mA
dV/dt	V_D=2/3V_{DRM} Gate Open T_j=125℃		MIN	30	10	V/μs

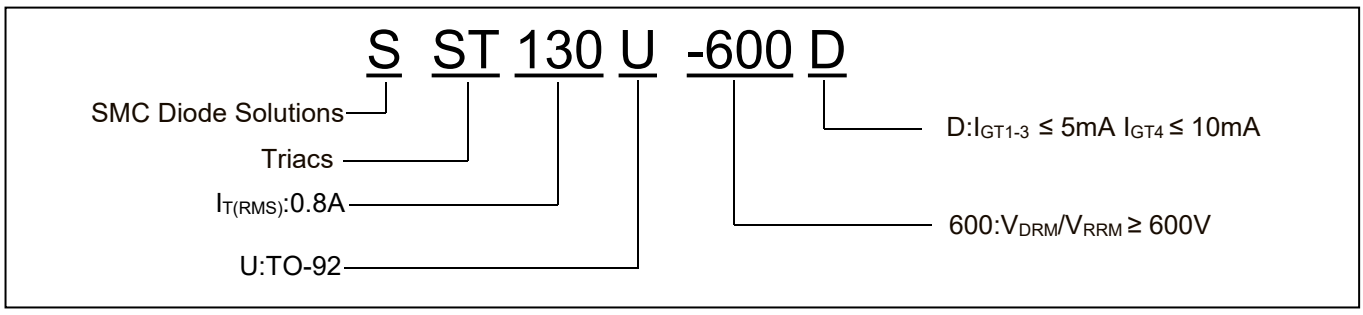
Static Characteristics

Symbol	Condition	Max.	Units
V_{TM}	I_T=1.1A tp=380μs,Tj=25℃	1.5	V
I_{DRM}	V_D=V_{DRM} V_R=V_{RRM}, Tj=25℃	5	μA
I_{RRM}	V_D=V_{DRM} V_R=V_{RRM}, Tj=125℃	100	μA

Thermal Resistances

Symbol	Condition		Value	Units
Rth(j-c)	Junction to case(AC)	TO-92	75	℃/W

Ordering Information



Device	Package	Shipping
SST130U-600D	TO-92	1000pcs/ bag

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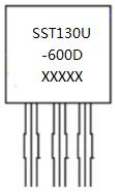
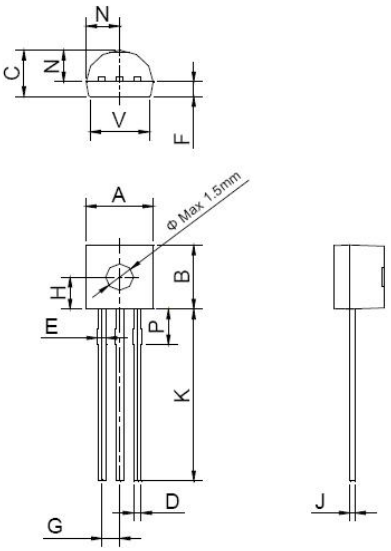
Marking Diagram



Where XXXXX is YYWWL

SST130U-600D = Part name
YY = Year
WW = Week
L = Lot Number

Mechanical Dimensions TO-92



SYMBOL	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.45	-	5.20	0.175	-	0.205
B	4.32	-	5.33	0.170	-	0.210
C	3.18	-	4.19	0.125	-	0.165
D	0.407	-	0.533	0.016	-	0.021
E	0.50	-	0.70	0.020	-	0.028
F	1.10	-	1.30	-		0.051
G	1.10	-	1.40	0.043		0.055
H	2.20	-	2.40	0.087		0.094
J	0.36	-	0.50	0.014	-	0.020
K	12.70	-	15.0	0.500	-	0.591
N	2.04	-	2.66	0.080	-	0.105
P	1.80	-	2.30	0.071	-	0.091
V	4.10	-	4.50	0.161	-	0.177

Ratings and Characteristics Curves

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

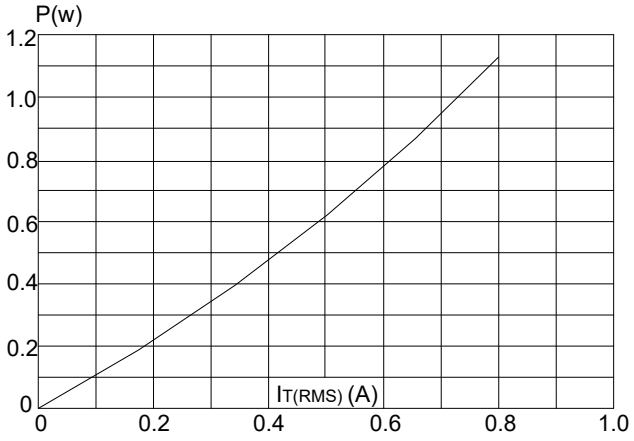


FIG.2: RMS on-state current versus case temperature

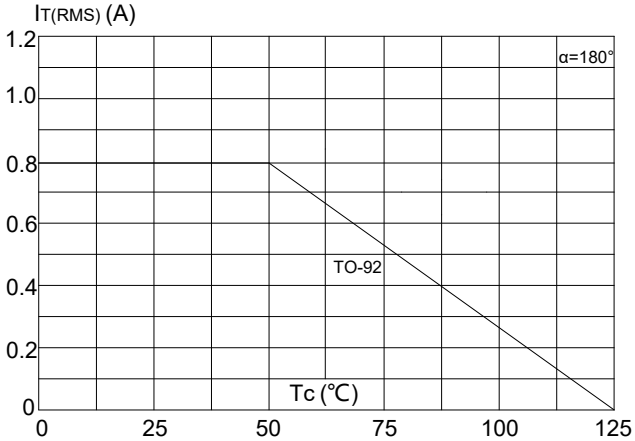


FIG.3: Surge peak on-state current versus number of cycles

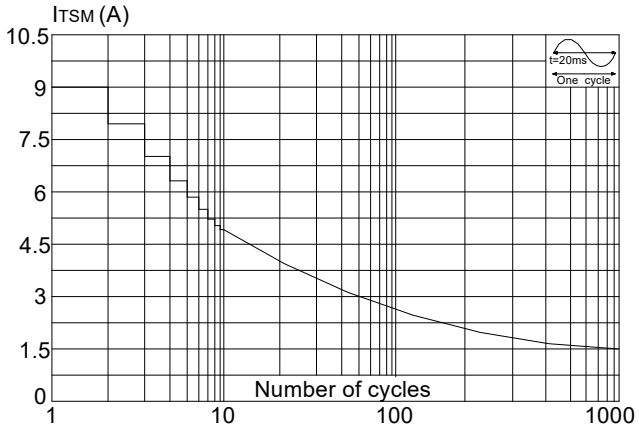


FIG.4: On-state characteristics (maximum values)

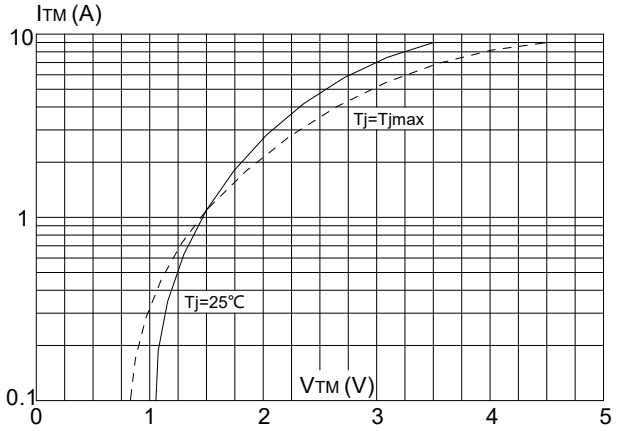


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width tp<20ms (Ⅰ-Ⅱ-Ⅲ:dI/dt < 50A/μs; Ⅳ:dI/dt < 20A/μs)

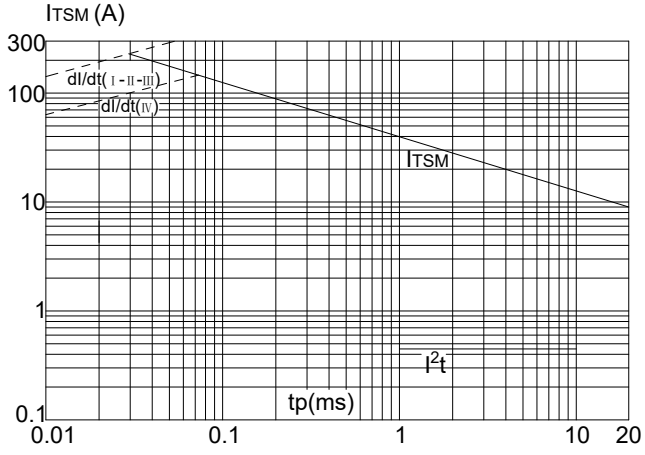
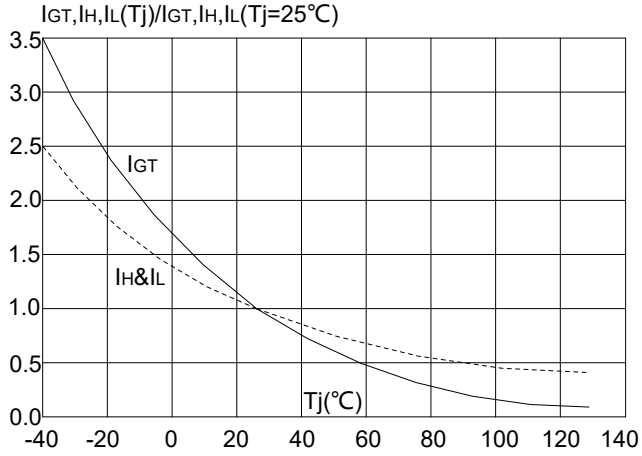


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature



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