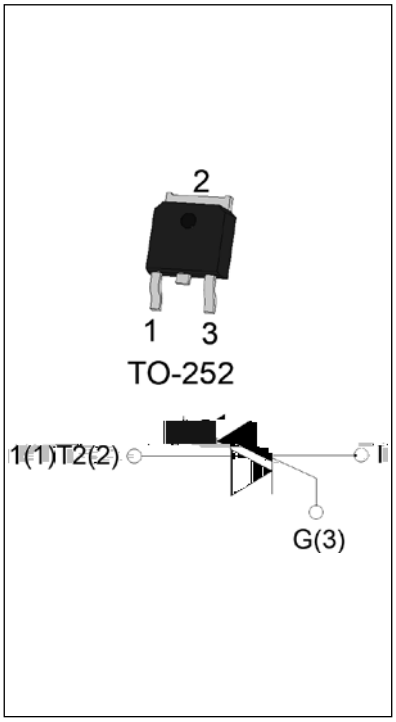
JST06K-800CW 6A TRIAC

Rev.A.1.1

The JST06K-800CW triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. JST06K-800CW snubberless triac is especially recommended for use on inductive loads. Package TO-252 is RoHS compliant.



Symbol	Value	Unit
$I_{T(RMS)}$	6	A
V_{DRM} /V_{RRM}	800	V
I_{GT} / /	35/35/35	mA

Parameter	Symbol	Value	Unit
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}	800	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	800	V
RMS on-state current (T_C 91)	$I_{T(RMS)}$	6	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	65	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		72	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	21	A^2s
Critical rate of rise of on-state current (I_G=2 × I_{GT} , f=100Hz , T_j=125)	dI/dt	100	A/μs
Peak gate current (t_p=20μs , T_j=125)	I_{GM}	4	A
Average gate power dissipation (T_j=125)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W

Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.8)	V_{pp}	3	kV

(T_j=25 unless otherwise specified)

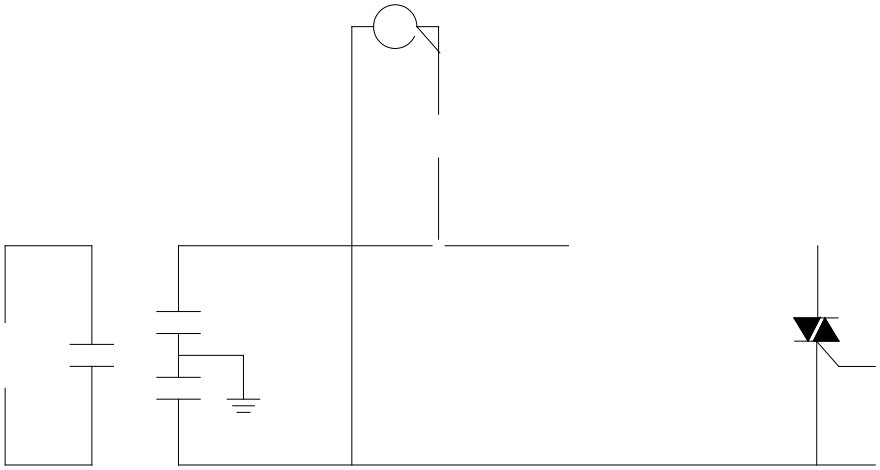
Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	35	mA
V_{GT}		- -	MAX.	1	V
V_{GD}	V_D =V_{DRM} T_j =125 R_L =3.3kΩ	- -	MIN.	0.2	V
I_L	I_G =1.2I_{GT}	-	MAX.	50	mA

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

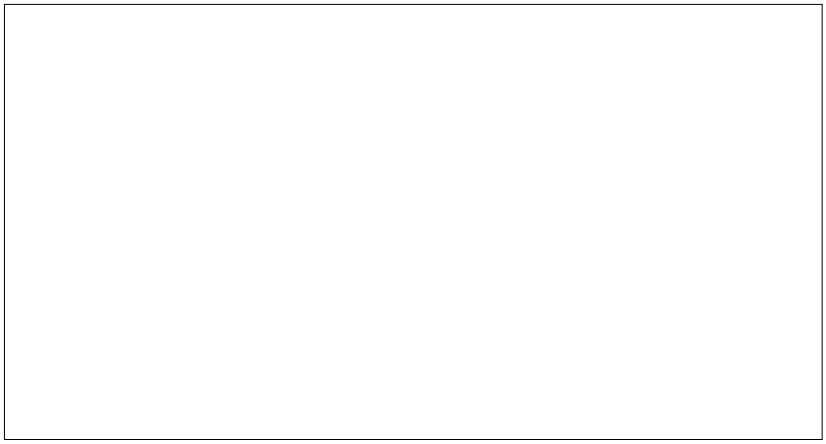
FIG.8 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards

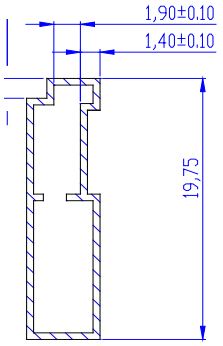


Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
		- -			
JST06K-800CW	800	35	TO-252	80	Tube
JST06K-800CW-TR				2,500	Tape & Reel

Document Revision History

Date	Revision	Changes
Apr.11, 2023	A.1.0	Last updated
Oct.22, 2025	A.1.1	Revise PACKAGE MECHANICAL DATA




1,90±0.10
1,40±0.10
19,75