JST41SJ-1200BW 40A TRIAC

Rev.A.2.1

DESCRIPTION:

The JST41SJ-1200BW 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. JST41SJ-1200BW snubberless triac is especially recommended for use on inductive loads. Package TO-247J is RoHS compliant.

MAIN FEATURES

ABSOLUTE MAXIMUM RATINGS

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}	1200	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	1200	V
RMS on-state current ($T_C \leq 86$)	$I_{T(RMS)}$	40	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	420	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		462	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	1000	A^2s
Critical rate of rise of on-state current			

Peak pulse voltage (T_j=25 ; non-repetitive,off-state;FIG.7)	V_{pp}	2	kV

ELECTRICAL CHARACTERISTICS(T_j=25 unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	V_D =12V R_L =33Ω	- -	MAX.	50	mA
V_{GT}		- -	MAX.	1.3	V
V_{GD}	V_D =V_{DRM} T_j=125 R_L =3.3kΩ	Q - - -	MIN.	0.2	V

ORDERING INFORMATION

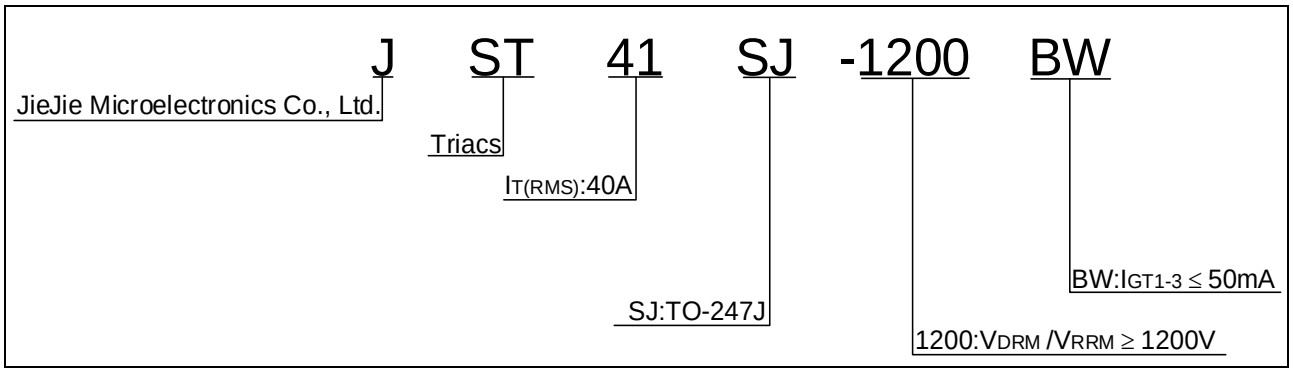


FIG.1: Maximum power dissipation versus RMS on-state current

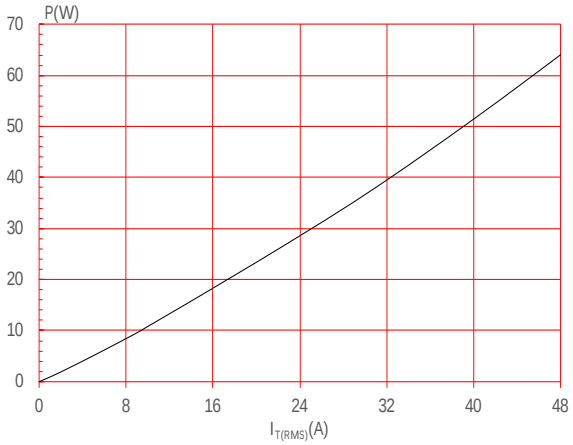


FIG.2: RMS on-state current versus case temperature

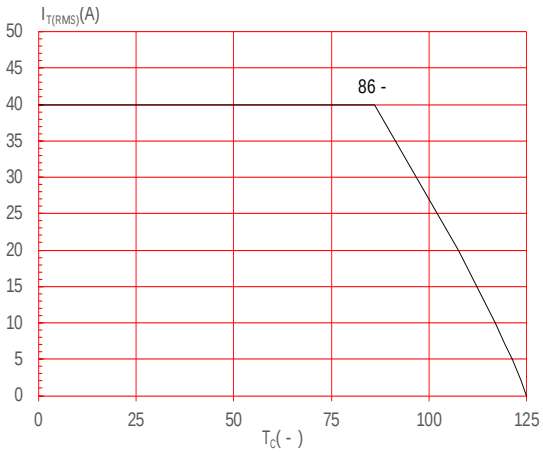
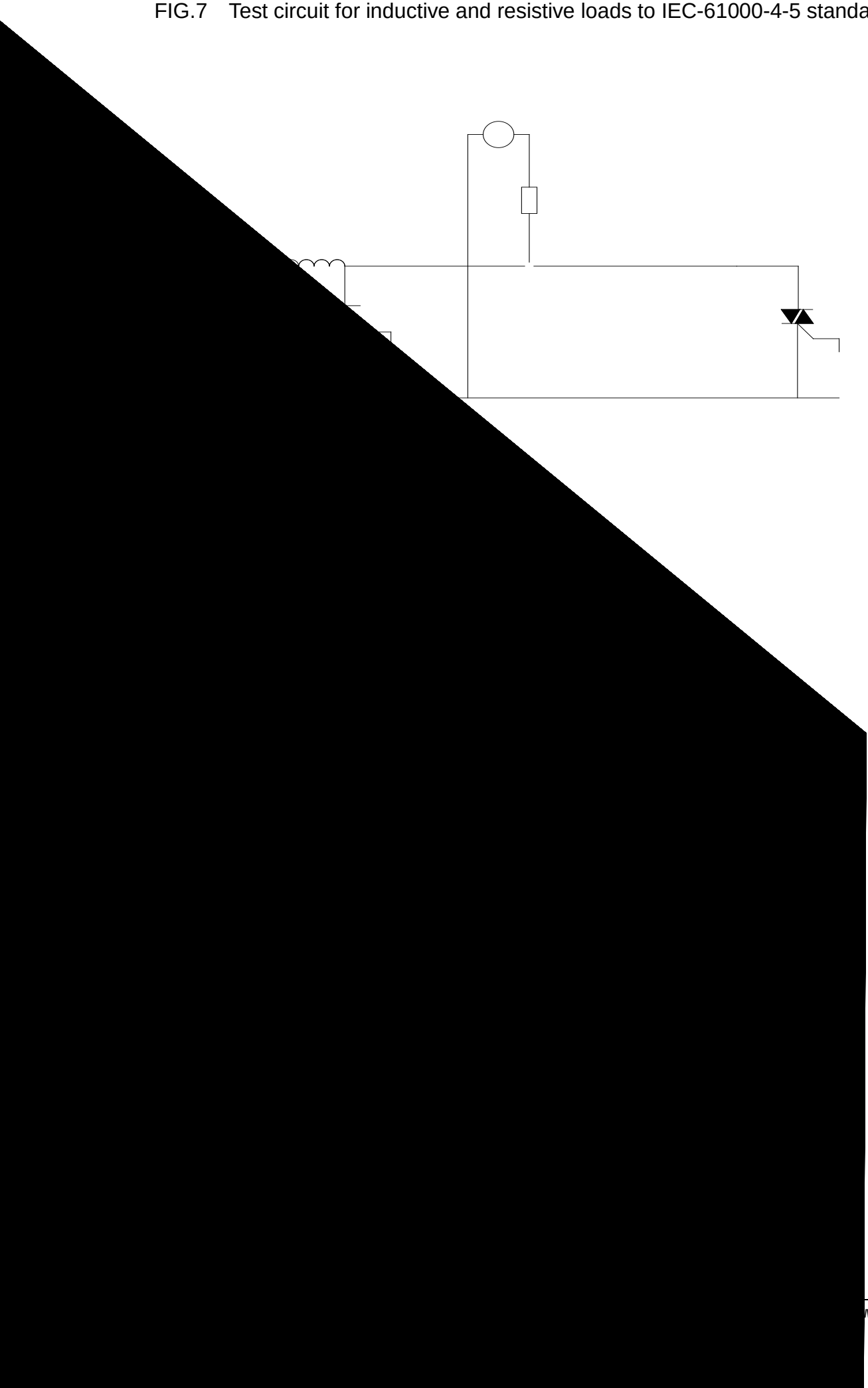


FIG.3: Surge peak on-state current versus number of cycles

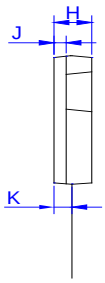
FIG.4: On-state characteristics

FIG.7 Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



JST41SJ-1200BW

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A						
B1						
C						
D						
E						
F						
G						

H

J

K

L