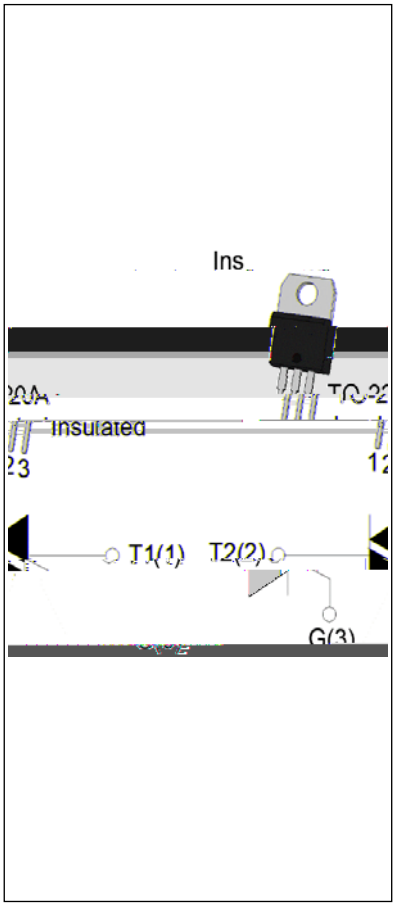
JST04A-600SW 4A TRIAC

Rev.A.1.2

DESCRIPTION:

The JST04A-600SW 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. JST04A-600SW snubberless triac is especially recommended for use on inductive loads. It can be driven directly through the MCU I/O port. By using an internal ceramic pad, JST04A-600SW provides a rated insulation voltage of 2500 VRMS, complying with UL standards (File ref: E252906). Package TO-220A is RoHS compliant.



MAIN FEATURES

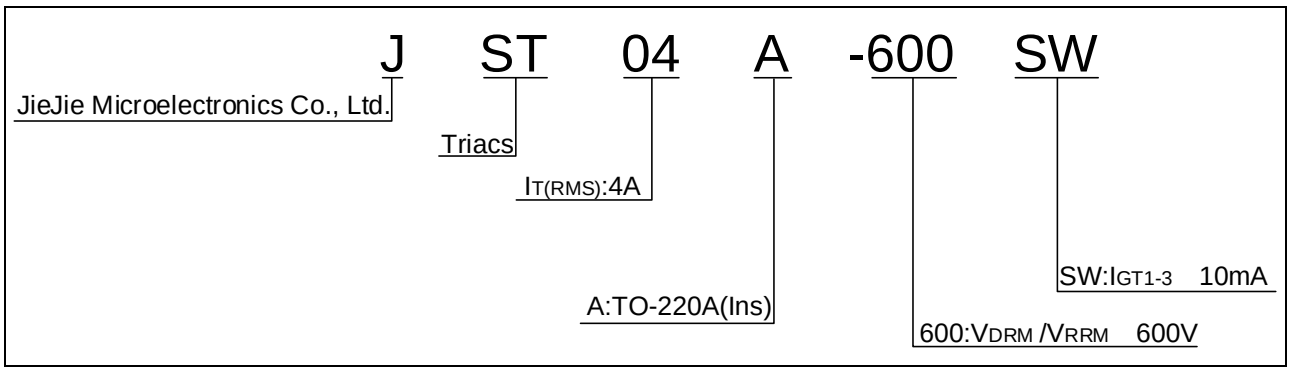
Symbol	Value	Unit
$I_{T(RMS)}$	4	A
V_{DRM} /V_{RRM}	600	V
I_{GT} / /	10/10/10	mA

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}	600	V
Repetitive peak reverse voltage (T_j=25)	V_{RRM}	600	V
RMS on-state current (T_C 100)	$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current (full cycle , t_p=20ms , T_j=25)	I_{TSM}	40	A
Non repetitive surge peak on-state current (full cycle , t_p=16.6ms , T_j=25)		44	
I^2t value for fusing (t_p=10ms , T_j=25)	I^2t	8	A^2s
Critical rate of rise of on-state current (I_G=2× I_{GT} , f=100Hz , T_j=125)	dI/dt	100	A s

Peak gate current (t_p=20 s , 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.7)	V_{pp}	3	kV

ORDERING INFORMATION



MARKING

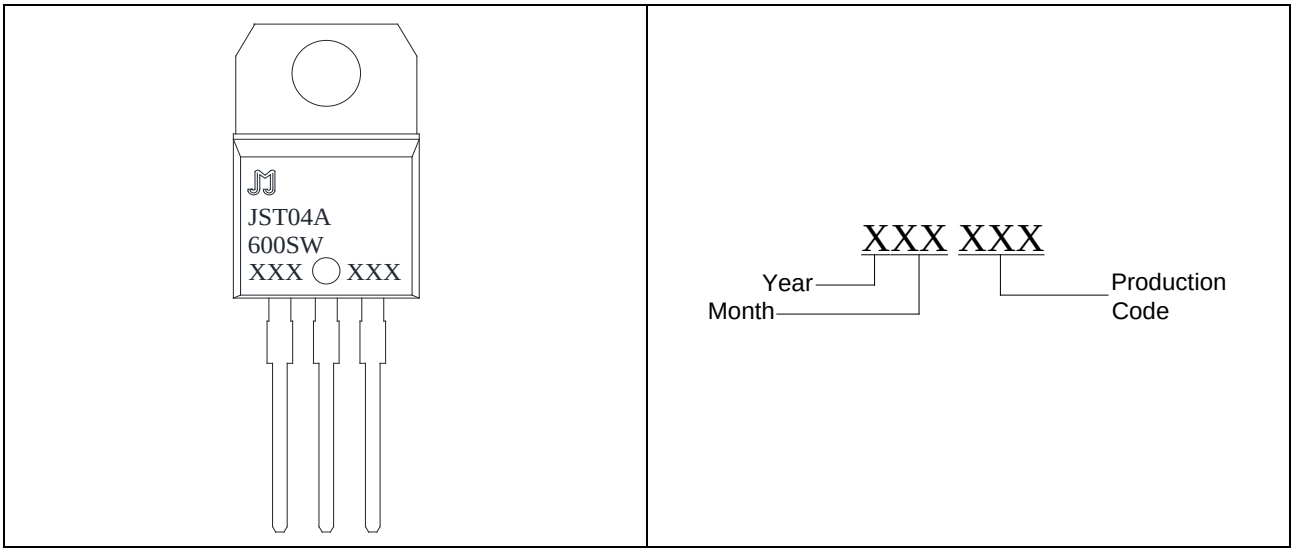


FIG.1: Maximum power dissipation versus RMS on-state current

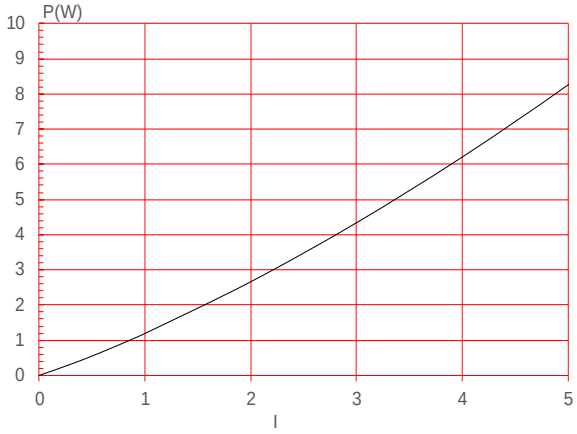
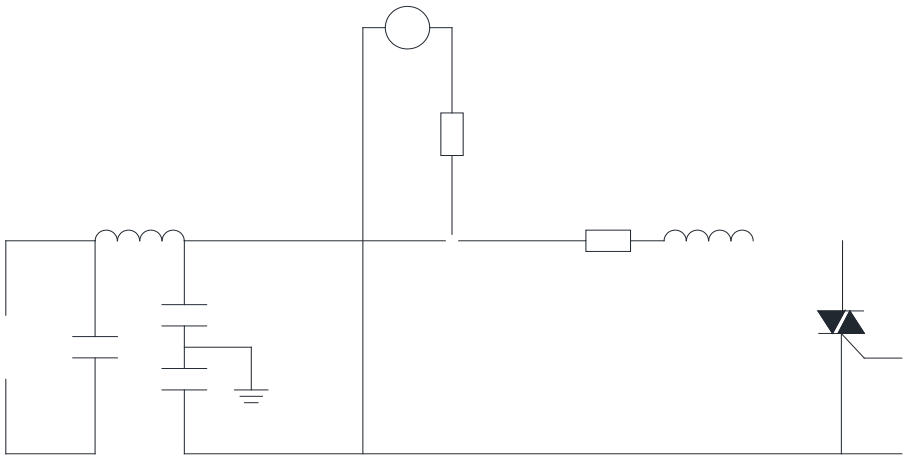


FIG.2: RMS on-state current versus case temperature

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



ORDERING INFORMATION

Order code	Voltage V_{DRM}/V_{RRM} (V)	IGT(mA) - -	Package	Base qty. (pcs)	Delivery mode
JST04A-600SW	600	10	TO-220A(Ins)	50	Tube

PACKAGE MECHANICAL DATA