



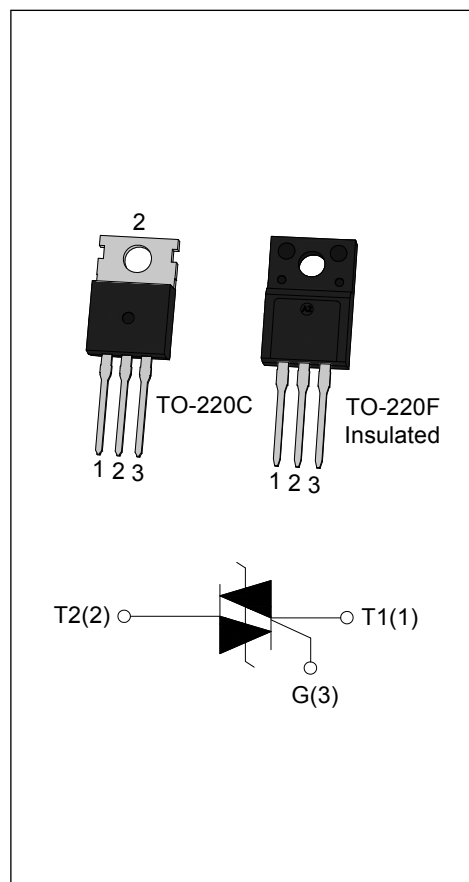
DESCRIPTION:

JST04X series provide high dv/dt rate with strong resistance to electromagnetic interference. They are especially recommended for use on home appliances such as motor control of washing machine, and for use on industrial control systems like electromagnetic valves. JST04X provides insulation voltage rated at 2000V_{RMS} from all three terminals to external heatsink complying with UL standards (File ref: E252906).

Package TO-220C&TO-220F are RoHS compliant. (2011/65/EU)

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	4	A
V_{DRM}/V_{RRM}	800/1000	V



ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
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}	800/1000	V
Repetitive peak reverse voltage($T_j=25^{\circ}\text{C}$)		V_{RRM}	800/1000	V
RMS on-state current	TO-220C/ TO-220F(Ins) ($T_C=102^{\circ}\text{C}$)	$I_{T(RMS)}$	4	A
Non repetitive surge peak on-state current (full cycle, $F=50\text{Hz}$)		I_{TSM}	40	A
I^2t value for fusing ($t_p=10\text{ms}$)		I^2t	8	A^2s
Rate of rise of on-state current ($I_G=2\times I_{GT}$)		di/dt	10	$\text{A}/\mu\text{s}$

Peak gate current	I_{GM}	4	A
Average gate power dissipation	$P_{G(AV)}$	1	W
Peak gate power	P_{GM}	5	W

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

Symbol	Test Condition	Quadrant		Value		Unit
				SW	CW	
I_{GT}	$V_D=12\text{V } R_L=33\Omega$	I - II -III	MAX	10	35	mA
V_{GT}		I - II -III	MAX	1.3		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	20	50	mA
		II		40	60	
I_H	$I_T=100\text{mA}$		MAX	15	40	mA
dV/dt	$V_D=2/3V_{DRM}$ Gate Open $T_j=125^{\circ}\text{C}$		MIN	500	800	V/ μs

STATIC CHARACTERISTICS

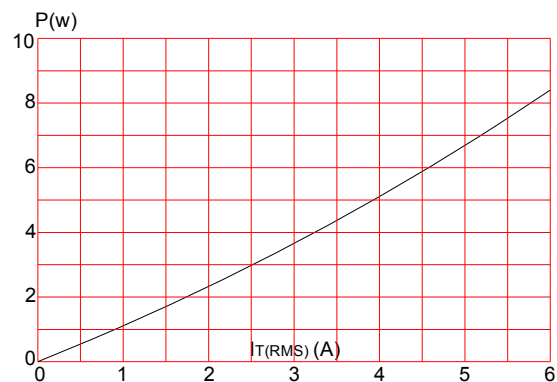
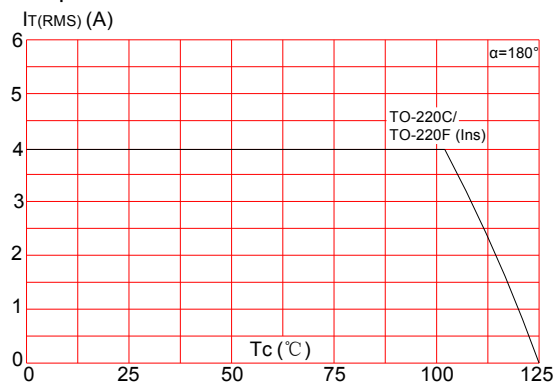
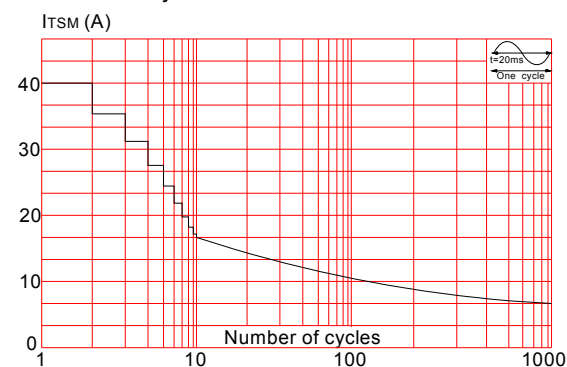
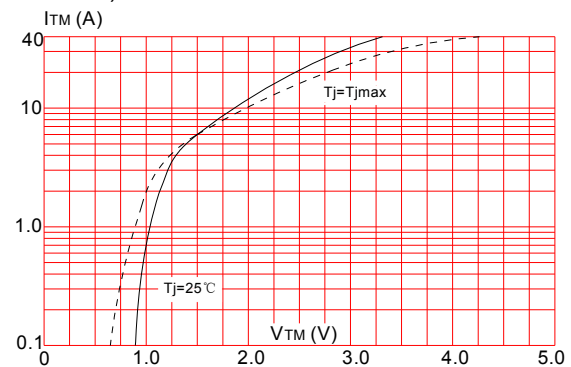
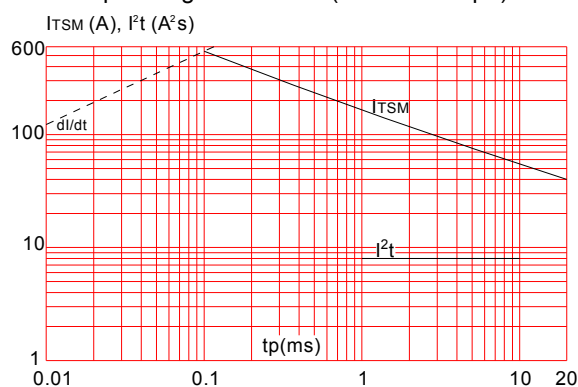
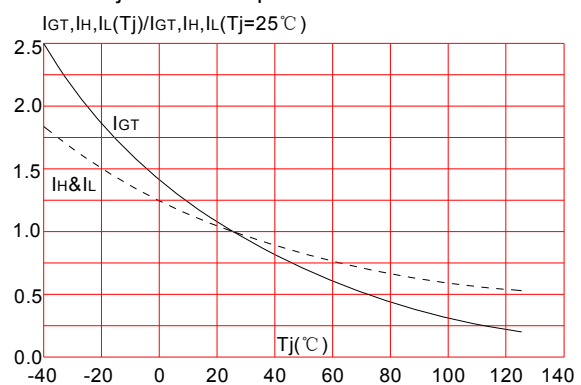
Symbol	Parameter		Value(MAX)	Unit
V_{TM}	$I_{TM}=6\text{A } t_p=380\mu\text{s}$	$T_j=25^{\circ}\text{C}$	1.5	V
V_{TO}	Threshold voltage	$T_j=125^{\circ}\text{C}$	0.95	V
R_d	Dynamic resistance	$T_j=125^{\circ}\text{C}$	80	$\text{m}\Omega$
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_j=25^{\circ}\text{C}$	5	μA
I_{RRM}		$T_j=125^{\circ}\text{C}$	0.5	mA

THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TO-220F(Ins)	3.8	$^{\circ}\text{C/W}$
		TO-220C	3.2	

ORDERING INFORMATION

J	ST	04	X	-800	SW	-/
JieJie Microelectronics Co.,Ltd	Triacs	$I_{T(RMS)}: 4A$			SW: $I_{GT1-3} \leq 10mA$ CW: $I_{GT1-3} \leq 35mA$	Blank: Tube
		C: TO-220C X: TO-220F(Ins)		800: $V_{DRM} / V_{RRM} \geq 800V$ 1000: $V_{DRM} / V_{RRM} \geq 1000V$		

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 $t_p < 20ms$ and corresponding value of I^2t ($di/dt < 50A/\mu s$)**FIG.6:** Relative variations of gate trigger current, holding current and latching current versus junction temperature

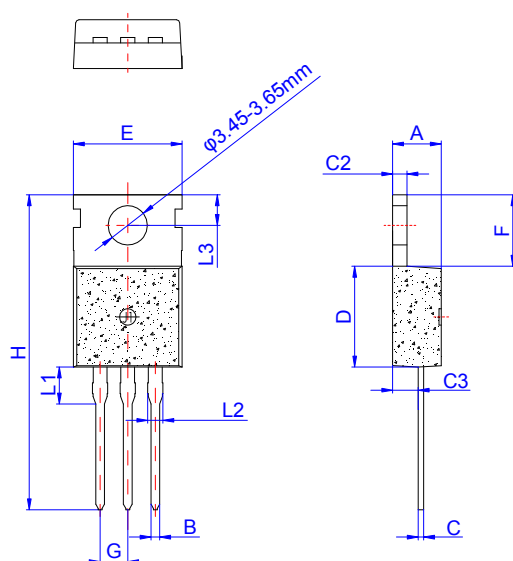
ORDERING INFORMATION

Order code	Voltage V _{DRM} /V _{RRM} (V)	IGT(mA)	Package	Base qty. (pcs)	Delivery mode
JST04X-800/1000SW	800/1000	10	TO-220F(Ins)	50	Tube
JST04X-800/1000CW		35			
JST04C-800/1000SW		10	TO-220C		
JST04C-800/1000CW		35			

Document Revision History

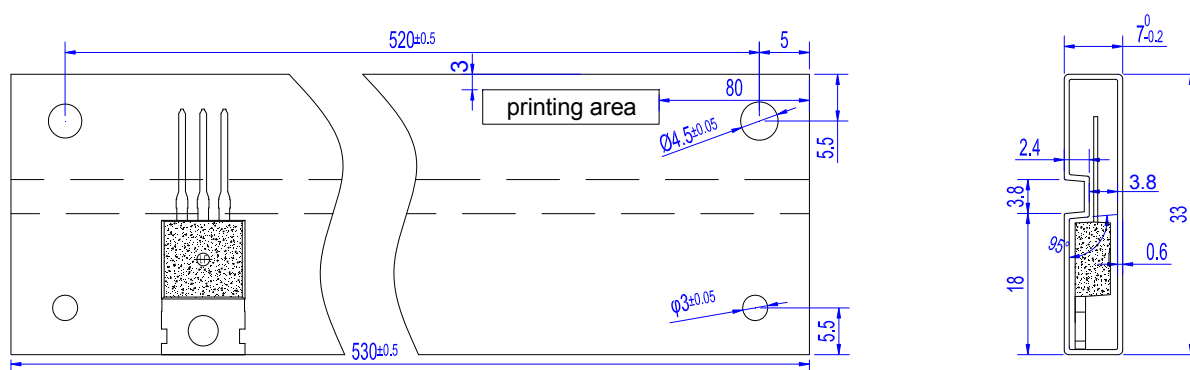
Date	Revision	Changes
June 17, 2021	3	Last update
Feb 11, 2022	4	Add Vto & Rd Add package TO-220C

PACKAGE MECHANICAL DATA



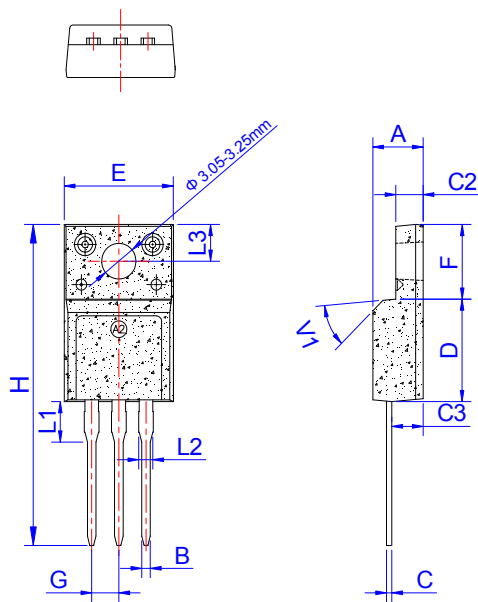
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	0.70		0.90	0.028		0.035
C	0.45		0.60	0.018		0.024
C2	1.23		1.32	0.048		0.052
C3	2.20		2.60	0.087		0.102
D	8.90		9.90	0.350		0.390
E	9.90		10.3	0.390		0.406
F	6.30		6.90	0.248		0.272
G		2.54			0.1	
H	28.0		29.8	1.102		1.173
L1		3.39			0.133	
L2	1.14		1.70	0.045		0.067
L3	2.65		2.95	0.104		0.116

DELIVERY MODE



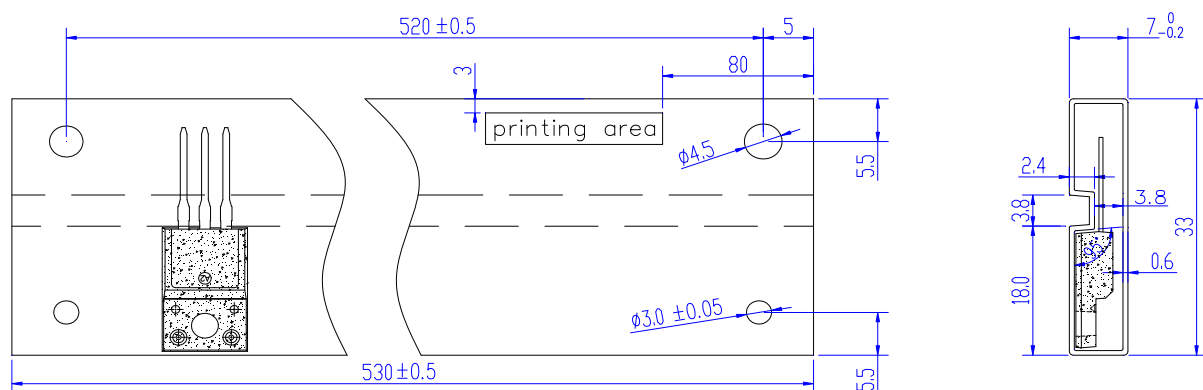
PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-220C	TUBE	50	1,000	5,000

PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50		4.90	0.177		0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.80		10.4	0.386		0.410
F	6.40		6.80	0.252		0.268
G	2.40		2.70	0.094		0.106
H	28.0		29.8	1.102		1.173
L1		3.63			0.143	
L2	1.14		1.70	0.045		0.067
L3		3.30			0.130	
V1		45°			45°	

DELIVERY MODE



PACKAGE	OUTLINE	TUBE (PCS)	INNER BOX (PCS)	PER CARTON
TO-220F	TUBE	50	1,000	5,000



Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co.,Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement. Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document supersedes and replaces all information previously supplied.



is a registered trademark of Jiangsu JieJie Microelectronics Co.,Ltd.
Copyright ©2022 Jiangsu JieJie Microelectronics Co.,Ltd. Printed All rights reserved.