

请 承 认 书

SPECIFICATION FOR APPROVAL

客户名称: _____
CUSTOMER: ELECTRONICS CO
客户部件号: _____
CUSTOMER PART NO. BTA30A TO-3P 600V
规格: _____
DESCRIPTION 30A 600V TRIACS
定位部件号: _____
PST PART NO. YZPST BTA30A 600V
发行日期: _____
ISSUE DATE: DECEMBER 21, 2018

客 户 认 可 APPROVED SIGNATURE		

认可日期: _____
APPROVED DATE: _____

扬州定位科技有限公司

YANGZHOU POSITIONING TECH CO., LTD.

POSITIONING TECH

TRIACS

SPEC. NO.

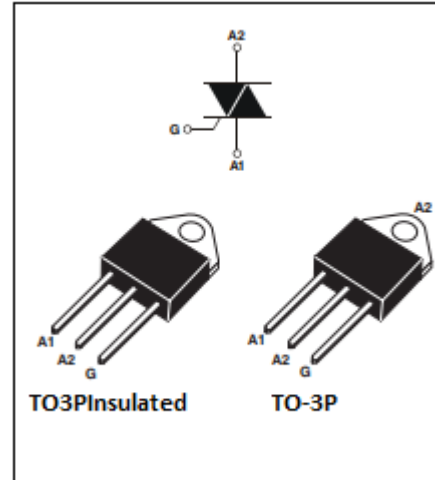
PART NO.

30A 600V TRIAC

BTA30A 600V

DESCRIPTION:

The BTA30 triac series is suitable to fit all models of control Found in applications such as motor control ,industrial and domestic lighting ,heating and static switching , motor speed controllers,...Thanks to their clip assembly technique, they provide a superior performance in surge current handling capabilities By using an internal ceramic pad, the BTA series provides voltage insulated tab (rated at 2500VRMS) complying with UL standards.



ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T _{stg}	-40 ~175	°C
Operating junction temperature range	T _j	-40~150	°C
Repetitive peak off-state voltage (T =25°C)	V _{DRM}	600	V
Repetitive peak reverse voltage (T =25°C)	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 _{T(RMS)}	30	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	I _{TSM}	300	A
I ² t value for fusing (tp=10ms)	I ² t	378	A ² S
Critical rate of rise of on-state current (I =2×I _{GT})	dI/dt	50	A/μS
Peak gate current	I _{GM}	4	A
Average gate power dissipation	P _{G(AV)}	1	W

审 核
CHECKED
BY

认 可
APPROVED
BY

SHEET_OF_

1/4

POSITIONING TECH

TRIACS

SPEC. NO.

PART NO.

TRIAC 30A 600V

BTA30A 600V

ELECTRICAL CHARACTERISTICS (T=25°C unless otherwise specified)

4 Quadrants

Symbol	Test Condition	Quadrant		Value	Unit
I_{GT}	$V = 12V$ $R = 33\Omega$	I II III	MAX.	20	mA
V_{GT}		I II III	MAX.	1.3	V
V_{GD}	$V_D = V_{DRM}$ $T_j = 125^\circ C$ $R = 3.3K\Omega$	I II III	MIN.	0.2	V
I_L	$I_G = 1.2I_{GT}$	I III	MAX.	50	mA
		II			
I_H	$I_T = 100mA$		MAX.	40	mA
dV/dt	$V_D = 2/3V_{DRM}$ Gate Open	$T_j = 125^\circ C$	MIN.	400	V/ μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM} = 4.5A$ $t_p = 380\mu s$	$T_j = 25^\circ C$	1.5	V
I_{DRM}	$V_D = V_{DRM}$ $V_R = V_{RRM}$	$T_j = 25^\circ C$	5	μA
I_{RRM}		$T_j = 125^\circ C$	1	mA

Thermal Resistances

Symbol	Parameter	Value(MAX.)	Unit
Rth(j-a)	junction to ambient	60	$^\circ C/W$
Rth(j-c)	Junction to tab (AC)	4.5	

制 成 DRAWN BY		审 核 CHECKED BY		认 可 APPROVED BY		SHEET_OF_ 2/4
--------------------	--	----------------------	--	-----------------------	--	------------------

POSITIONING TECH

TRIACS

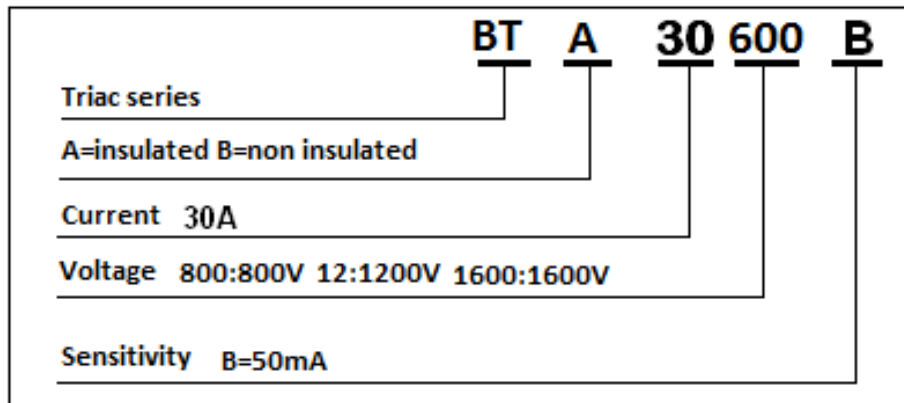
SPEC. NO.

PART NO.

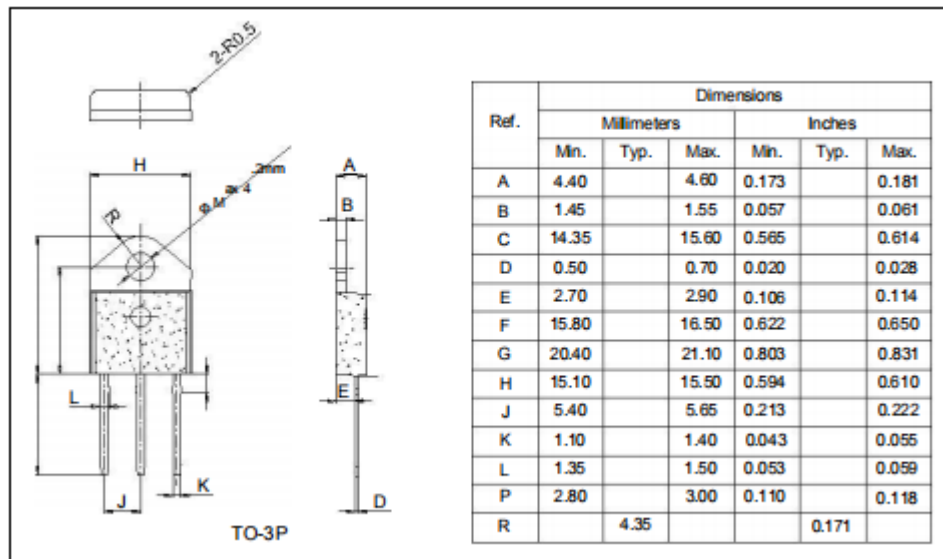
30A 600V TRIAC

BTA30A 600V

Ordering Information Scheme



TO-3P Package Mechanical Data



制 成 DRAWN BY		审 核 CHECKED BY		认 可 APPROVED BY		SHEET_OF_ 3/4
--------------------	--	----------------------	--	-----------------------	--	----------------------

POSITIONING TECH

TRIACS

SPEC. NO.

PART NO.

30A 600V TRIAC

BTA30A 600V

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

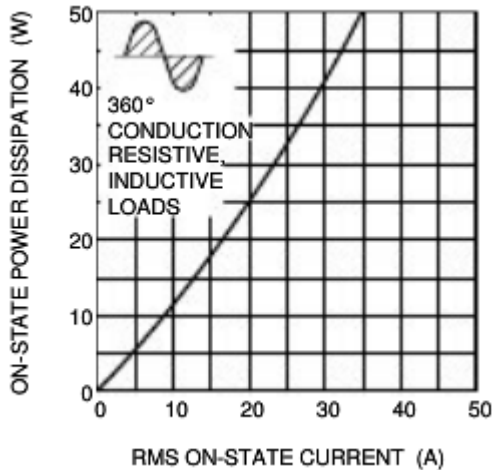


FIG.2: RMS on-state current versus case temperature

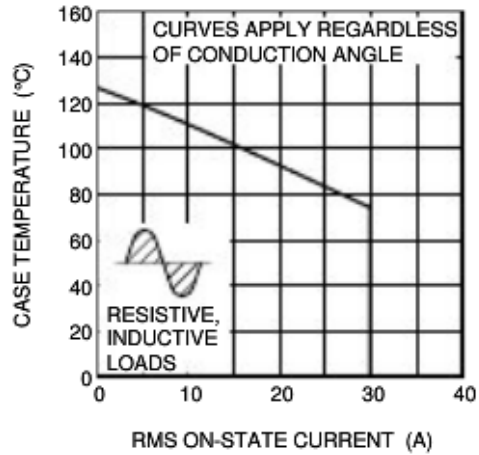


FIG.3: Surge peak on-state current versus number of cycles

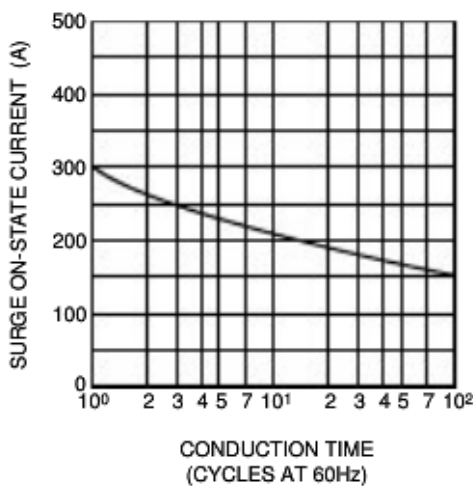


FIG.4: On-state characteristics (maximum values)

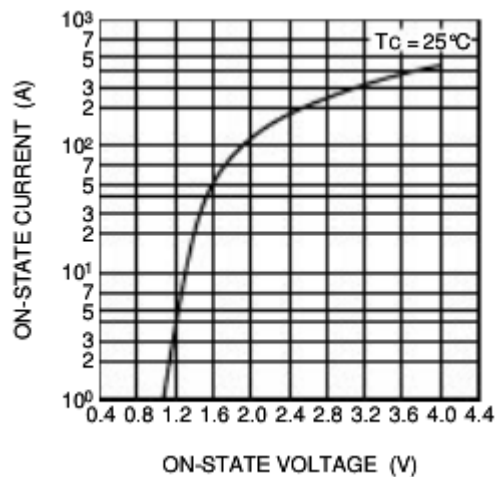


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 10\text{ms}$, and corresponding value of $I^2 t$ ($dI/dt < 50\text{A}/\mu\text{s}$)

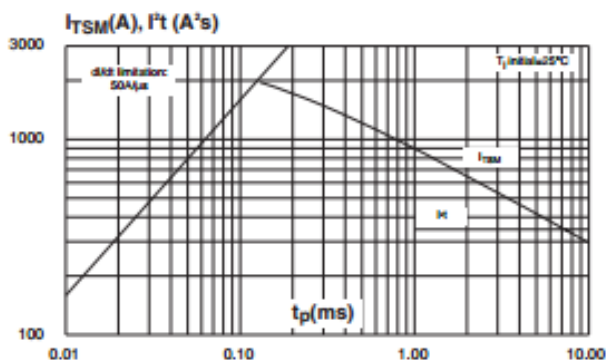
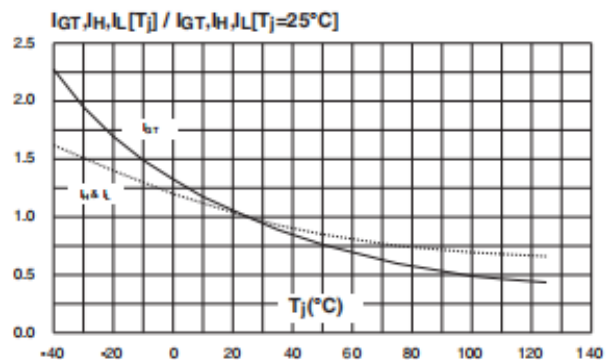


FIG.6: Relative variations of gate trigger current holding current and latching current versus junction temperature



SAMPLE TEST DATA

客户编号 CUSTOMER	ELECTRONICS	TESTED BY	APPROVED BY
定位部件号 YZPST PART NO.	YZPST BTA30 600V		
客户部件号 CUSTOMER PART NO.	BTA30 TO-3P 600V		
样品数量 QUANTITY			
测试条件			测试仪器
VDRM	T =25°C	Igt1	V =12V R =33Ω
VRRM	T =25°C	Igt2	V =12V R =33Ω
		Igt3	V =12V R =33Ω

VDRM	VRRM	IGT1	IGT2	IGT3
>600v	>600v	<50mA	<50mA	<50mA
1210	1218	9.4	17.1	12.6
1186	1206	9.5	17.2	12.7
1164	1212	9.5	17.3	12.8
1168	1188	9.5	17.3	12.9
1222	1232	9.2	16.7	12.2
1184	1190	9.4	17.1	12.8
1198	1216	9.4	17.5	12.6
1168	1210	9.3	17.4	12.7
1200	1235	9.5	17.6	12.8
1196	1246	9.3	17.1	12.6

备 注:
REMARK: