

## YZPST-BTA12-600SW

### ●Product features

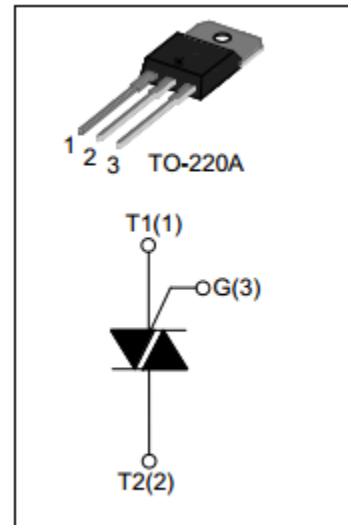
Single mesa structure (Single Mesa),  
 Table glass passivation process,  
 Voltage stability  
 The ability of strong current shock resistance  
 The applicable model: BTA12

### ●The main purpose

Washing machine, the hair straightened  
 Solid state relay, AC motor speed control

### ●Package

TO-220A



### ●Main Feature (Tj=25°C)

Symbol	Value	Unit
$I_T$ (RMS)	12	A
$V_{DRM} / V_{RRM}$	600/800	V
$V_{TM}$	1.55	V

### ●Absolute ratings (Limiting Values)

Symbol	Parameter	Value	Unit
$I_{TSM}$	Non repetitive surge peak on-state Current (tp=10ms)	115	A
$P_t$	(tp=10ms)	70	A <sup>2</sup> S
dI/dt	$I_G=2I_{GT}$ , tr≤100ns,Tj=125°C	50	A/μs
$I_{GM}$	Peak gate current(tp=20us)	4	A
$P_{G(AV)}$	Average gate power	1	W
Tstg	Storage temperature	-40--+150	°C
Tj	Operating junction temperature	-40--+125	°C

**●Thermai Resistances**

Symbol	Parameter		Value	Unit
Rth (j-c)	Junction to case	TO-220A	2.3	°C/W
		TO-220B/TO-220C	1.4	
		TO-220F	3.9	

**●Electrical characteristics (T<sub>j</sub>=25°C unless otherwise stated)**

Symbol	Test Conditions	Value						Unit	
		TW	SW	CW	BW	C	B		
I <sub>GT</sub>	V <sub>D</sub> =12V, R <sub>L</sub> =30 Ω	I II III	≤5	≤10	≤25	≤50	≤25	≤50	mA
		IV	----	----	----	----	≤50	≤100	
I <sub>DRM</sub>	V <sub>D</sub> =V <sub>DRM</sub>	T <sub>j</sub> =25°C	≤5						μ A
		T <sub>j</sub> =125°C	≤1						mA
I <sub>RPM</sub>	V <sub>D</sub> =V <sub>RPM</sub>	T <sub>j</sub> =25°C	≤5						μ A
		T <sub>j</sub> =125°C	≤1						mA
I <sub>L</sub>	I <sub>G</sub> =1.2I <sub>GT</sub>	I III	≤10	≤25	≤50	≤70	≤40	≤50	mA
		IV	----	----	----	----	≤40	≤50	
		II	≤15	≤30	≤60	≤80	≤80	≤100	
V <sub>GT</sub>	V <sub>D</sub> =12V, R <sub>L</sub> =30 Ω	≤1.3						V	
V <sub>GD</sub>	V <sub>D</sub> =V <sub>DRM</sub> , T <sub>j</sub> =125°C R <sub>L</sub> =3.3K Ω	≥0.2						V	
V <sub>TM</sub>	I <sub>TM</sub> =17A, tp=380 μ s	1.55						V	
I <sub>H</sub>	V <sub>D</sub> =12V, I <sub>T</sub> =200mA	≤20	≤25	≤35	≤50	≤25	≤50	mA	
dV/dt	V <sub>D</sub> =67% V <sub>DRM</sub> , GateOpen, T <sub>j</sub> =125°C	≥40	≥100	≥400	≥1000	≥200	≥400	v/ μ s	

● **Measure of package**  
**TO-220A**

