

BTA12

●Product features

Single mesa structure (Single Mesa),

Table glass passivation process,

Voltage stability

The ability of strong current shock resistance

The applicable model: BTA12

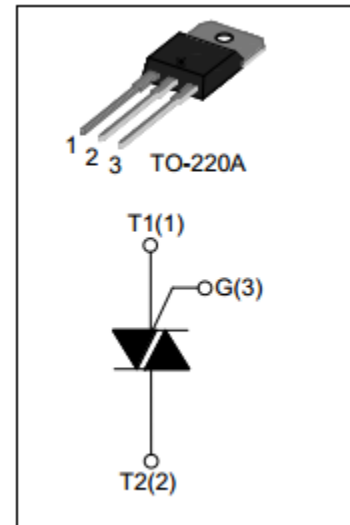
●The main purpose

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
I^2t	(tp=10ms)	70	A ² S
dI/dt	$I_G=2I_{GT}$, $t_r \leq 100ns$, $T_j=125^\circ C$	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_j=25°C unless otherwise stated)

Symbol	Test Conditions	Value						Unit	
		TW	SW	CW	BW	C	B		
I _{GT}	V _D =12V, R _L =30 Ω	I II III	≤5	≤10	≤25	≤50	≤25	≤50	mA
		IV	----	----	----	----	≤50	≤100	
I _{DRM}	V _D =V _{DRM}	T _j =25°C	≤5						μ A
		T _j =125°C	≤1						mA
I _{RRM}	V _D =V _{RRM}	T _j =25°C	≤5						μ A
		T _j =125°C	≤1						mA
I _L	I _G =1.2I _{GT}	I III	≤10	≤25	≤50	≤70	≤40	≤50	mA
		IV	----	----	----	----	≤40	≤50	
		II	≤15	≤30	≤60	≤80	≤80	≤100	
V _{GT}	V _D =12V, R _L =30 Ω	≤1.3						V	
V _{GD}	V _D =V _{DRM} , T _j =125°C R _L =3.3K Ω	≥0.2						V	
V _{TM}	I _{TM} =17A, tp=380 μ s	1.55						V	
I _H	V _D =12V, I _T =200mA	≤20	≤25	≤35	≤50	≤25	≤50	mA	
dV/dt	V _D =67% V _{DRM} , GateOpen, T _j =125°C	≥40	≥100	≥400	≥1000	≥200	≥400	v/ μ s	

● **Measure of package**
TO-220A

