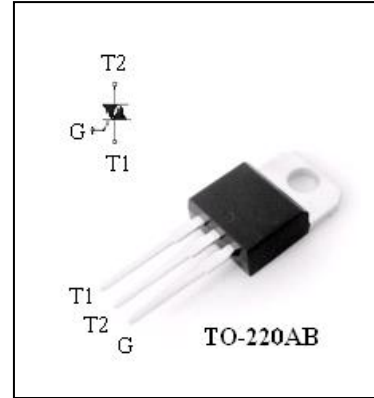


**BTA06/600CW      •Package      TO-220AB**

**•Main Feature (T<sub>j</sub>=25°C)**

Symbol	Value	Unit
I <sub>T(RMS)</sub>	6	A
V <sub>DRM</sub> / V <sub>RRM</sub>	≥600	V
I <sub>TSM</sub>	60	A



**•Absolute ratings (Limiting Values)**

Symbol	Parameter	Value	Unit
I <sub>T(RMS)</sub>	Rms on-state current(full sine wave)	6	A
I <sub>TSM</sub>	Non- repetitive Peak on-state Current (T <sub>j</sub> =25°C ,tp=20ms)	25	A
I <sup>2</sup> t	I <sup>2</sup> t for fusing(tp=10ms)	3.1	A <sup>2</sup> S
I <sub>GM</sub>	Peak gate current	2	A
V <sub>GM</sub>	Peak gate voltage	16	V
P <sub>GM</sub>	Peak gate power	0.5	W
P <sub>G(AV)</sub>	Average gate power	1	W
dI <sub>T</sub> /dt	I <sub>g</sub> =21GT, trr<100ns, T <sub>j</sub> =125°C	I - II -III 50 IV 50	A/ μ s
T <sub>stg</sub>	Storage temperature	-40--+150	°C
T <sub>j</sub>	Operating junction temperature	-40--+125	°C

**•Thermal Resistances**

Symbol	Parameter	Condition	Type	Unit
R <sub>th j-c</sub>	Thermal Resistance,Junction to case	One cycle	BTA	3.5 °C/W
R <sub>th j-a</sub>	Thermal Resisatance,Junction to ambient	---	---	60 °C/W

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

Symbol	Test Conditions	Type	Max	Unit
I <sub>GT</sub>	BTA V <sub>D</sub> =12V I <sub>T</sub> =0.1A T2+ G+ T2+ G- T2- G-	17 20 20	CW 25 30 30	mA
I <sub>H</sub>	V <sub>D</sub> =12V I <sub>GT</sub> =0.1A		50	mA
V <sub>TM</sub>	I <sub>T</sub> =20A	-1.3-	1.55	V

$I_{DRM}$	$V_{DRM}=800V$		10	$\mu A$
$I_{RRM}$	$V_{RRM}=800V$		10	$\mu A$
$V_{GT}$	$V_D=12V$ $I_T=0.1A$ $T_j=125^\circ C$	---	1.30	V
$I_D$	$V_D=V_{DRM} (MAX)$ $T_j=125^\circ C$	---	0.5	mA

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

Symbol	Test Conditions	Type	Min	Max	Unit
dV/dt	$V_{DM}=67\%V_{DM} (MAX)$ $T_j=110^\circ C$	400	200	---	V/ $\mu s$
(dV/dt) <sub>c</sub>	(dI/dt) <sub>c</sub> =7A/ms $T_j=125^\circ C$	---	5	10	$\mu s$

**● Measure of package TO-220AB :**

TO-220AB Ins.

REF.	尺寸					
	毫米			英尺		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	15.20		15.90	0.598		0.625
a1		3.75			0.147	
a2	13.00		14.00	0.511		0.551
B	10.00		10.40	0.393		0.409
b1	0.61		0.88	0.024		0.034
b2	1.23		1.32	0.048		0.051
C	4.40		4.60	0.173		0.181
c1	0.49		0.70	0.019		0.027
c2	2.40		2.72	0.094		0.107
e	2.40		2.70	0.094		0.106
F	6.20		6.60	0.244		0.259
I	3.75		3.85	0.147		0.151
I4	15.80	16.40	16.80	0.622	0.646	0.661
L	2.65		2.95	0.104		0.116
I2	1.14		1.70	0.044		0.066
I3	1.14		1.70	0.044		0.066
M		2.60			0.102	