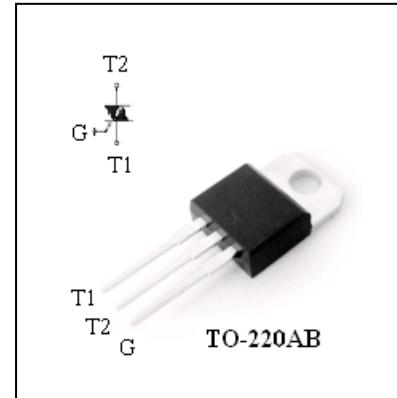


### •Package

TO-220AB



### •Main Feature ( $T_j=25^\circ\text{C}$ )

Symbol	Value	Unit
$I_T(\text{RMS})$	24	A
$V_{\text{DRM}} / V_{\text{RRM}}$	$\geq 600$	V
$I_{\text{TSM}}$	240	A

### •Absolute ratings (Limiting Values)

Symbol	Parameter	Value		Unit
$I_T(\text{RMS})$	Rms on-state current(full sine wave)	24		A
$I_{\text{TSM}}$	<i>Non-repetitive Peak on-state Current</i> ( $T_j=25^\circ\text{C}$ , $t_p=20\text{ms}$ )	240		A
$I^2t$	$I^2t$ for fusing( $t_p=10\text{ms}$ )	200		$\text{A}^2\text{s}$
$I_{\text{GM}}$	Peak gate current	5		A
$V_{\text{GM}}$	Peak gate voltage	16		V
$P_{\text{GM}}$	Peak gate power	40		W
$P_{\text{G(AV)}}$	Average gate power	1		W
$dI_T/dt$	<i>Repetitive rate of rise of on-state current after triggering</i> $(I_T=64, I_G=0.24, dI_G/dt=0.2\text{A}/\mu\text{s})$	I - II - III	50	$\text{A}/\mu\text{s}$
		IV	50	
$T_{\text{stg}}$ $T_j$	Storage temperature Operating junction temperature	$-40\text{--}+150$ $-40\text{--}+125$		°C

### •Thermal Resistances

Symbol	Parameter	Condition	Type	Unit
$R_{\text{th j-c}}$	Thermal Resistance,Junction to case	One cycle	BTA	2.1
				°C/W
$R_{\text{th j-a}}$	Thermal Resisatance,Junction to ambient	-----	60	°C/W

●Electrical characteristics ( $T_j=25^\circ\text{C}$  unless otherwise stated)

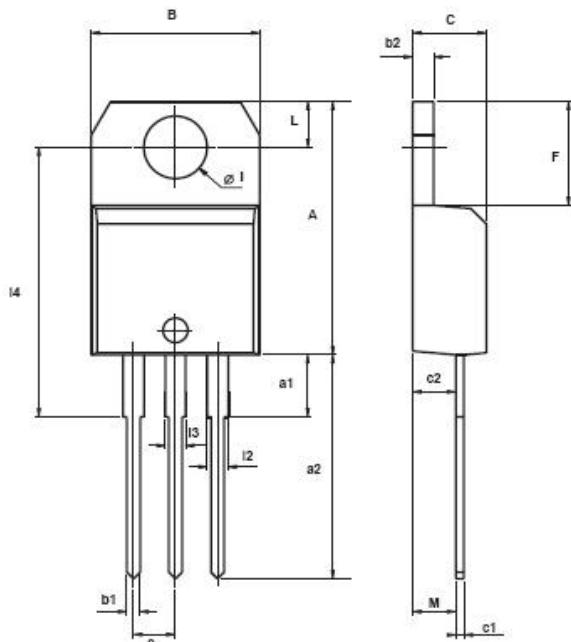
Symbol	Conditions	Type	Max	Unit
$I_{GT}$	BTA24 $V_D=12\text{V}$ $I_T=0.1\text{A}$ T2+ G+ T2+ G- T2- G-	11 15 20	50 50 50	mA mA mA
$I_H$	$V_D=12\text{V}$ $I_{GT}=0.1\text{A}$		50	mA
$V_{TM}$	$I_T=24\text{A}$	—1.25—	1.5	V
$I_{DRM}$	$V_{DRM}=800\text{V}$		10	$\mu\text{A}$
$I_{RRM}$	$V_{RRM}=800\text{V}$		15	$\mu\text{A}$
$V_{GT}$	$V_D=12\text{V}$ $I_T=0.1\text{A}$ $T_j=125^\circ\text{C}$	—	1.5	V
$I_D$	$V_D=V_{DRM} (\text{MAX})$ $T_j=125^\circ\text{C}$	—	0.5	mA

●Dynamic characteristics ( $T_j=25^\circ\text{C}$  unless otherwise stated)

Symbol	Test Conditions	Type	Min	Max	Unit
$dV/dt$	$V_{DM}=67\%V_{Dm} (\text{MAX})$ $T_j=125^\circ\text{C}$	500	250	—	V/ $\mu\text{s}$
$(dV/dt)c$	$(dI/dt)c=7\text{A/ms}$ $T_j=125^\circ\text{C}$	—	10	—	$\mu\text{s}$

**● 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