

## BTA20/BTB20

## TO-220

### Triac Series

Absolute maximum ratings

Parameter	Symbol	Value	Unit	Test condition
peak repetitive off-stage voltage	$V_{DRM}, V_{RRM}$	600	V	$I_D=0.1mA, I_R=0.1mA$
on-state RMS current	$I_T(RMS)$	20	A	all conduction angles
NON repetitive surge peak on-state current	$I_{TSM}$	200	A	$T_p=10ms, T_j=25^\circ C$
critical rate of rise on-state current	$di/dt$	20	A/ $\mu s$	$I_{TM}=20A, I_G=50mA$
peak gate current	$I_{GM}$	4	A	$t_p=20\mu s$
average gate power dissipation	$P_G(AV)$	1	W	
storage temperature range	$T_{stg}$	-40 to +150	$^\circ C$	
operating junction temperature range	$T_j$	125	$^\circ C$	

Electrical characteristics (  $T_j=25^\circ C$ ) unless otherwise specified

Parameter	Symbol	Value	Unit	Test condition
gate trigger current	$I_{GT}$	$\leq 50$	mA	T2+G+ $V_D=12V, I_T=0.1A$
		$\leq 50$	mA	T2+G- $V_D=12V, I_T=0.1A$
		$\leq 50$	mA	T2-G- $V_D=12V, I_T=0.1A$
		$\leq 100$	mA	T2-G+ $V_D=12V, I_T=0.1A$
gate trigger voltage	$V_{GT}$	$\leq 1.3$	V	$V_D=12V, I_T=0.1A$
hold current	$I_H$	$\leq 50$	mA	$V_D=12V, I_T=0.1A$
critical rate of rise off-state voltage	$dv/dt$	$\geq 200$	V/ $\mu s$	$V_D=67\%V_{DRM}$
on-state voltage	$V_{TM}$	$\leq 1.7$	V	$I_T=28A$
off-state leakage current	$I_{DRM}$	$\leq 3.0$	mA	$V_D=V_{DRM}; T_j=125^\circ C$
thermal resistance	$R_{th(j-a)}$	60	$^\circ C/W$	
	$R_{th(j-c)} AC$	$\leq 2.0$		BTA Insulated
	$R_{th(j-c)} AC$	$\leq 1.7$		BTB Uninsulated

#### Disclaimer

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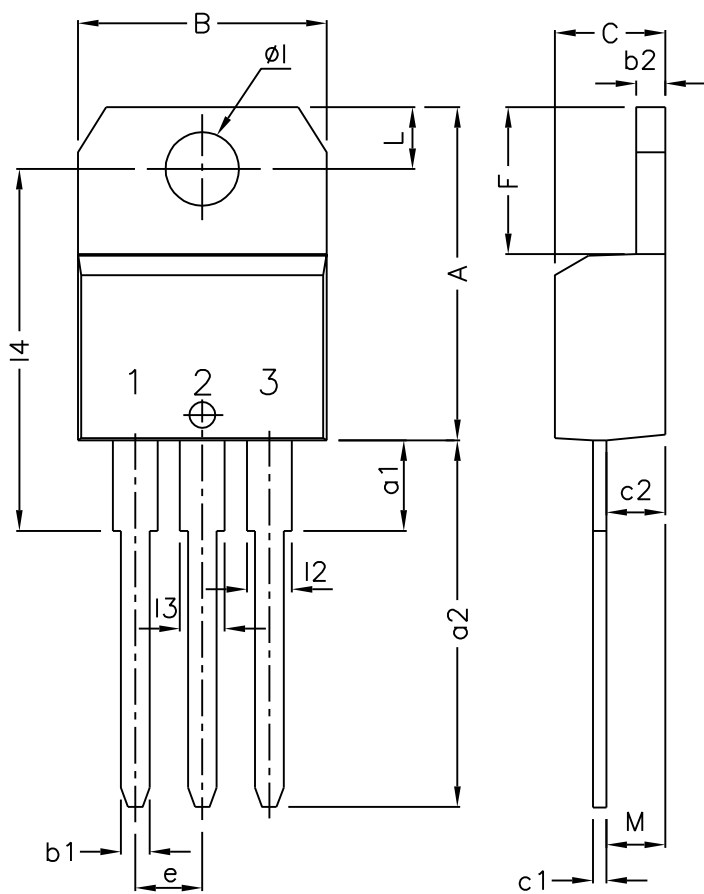
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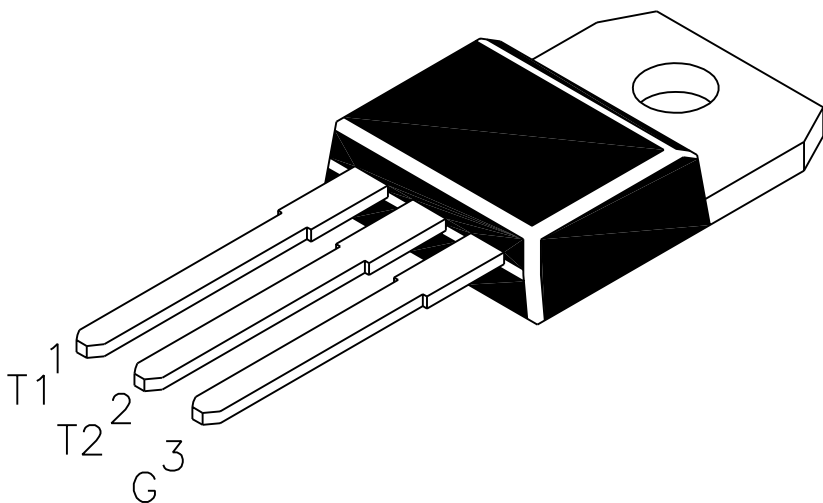
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# PACKAGE TO-220 AB



DIM	MIN	TYP.	MAX
A	15.20		15.90
a1		3.75	
a2	13.00		14.00
B	10.00		10.40
b1	0.61		0.88
b2	1.23		1.32
C	4.40		4.60
c1	0.49		0.70
c2	2.40		2.72
e	2.40		2.70
F	6.20		6.60
I	3.75		3.85
I4	15.80	16.40	16.80
L	2.65		2.95
I2	1.14		1.70
I3	1.14		1.70
M		2.60	

ALL DIMENSIONS ARE IN mm



### PIN CONFIGURATION:—

1. MAIN TERMINAL 1
2. MAIN TERMINAL 2
3. GATE