



THE DATASHEET OF BTA41-800B



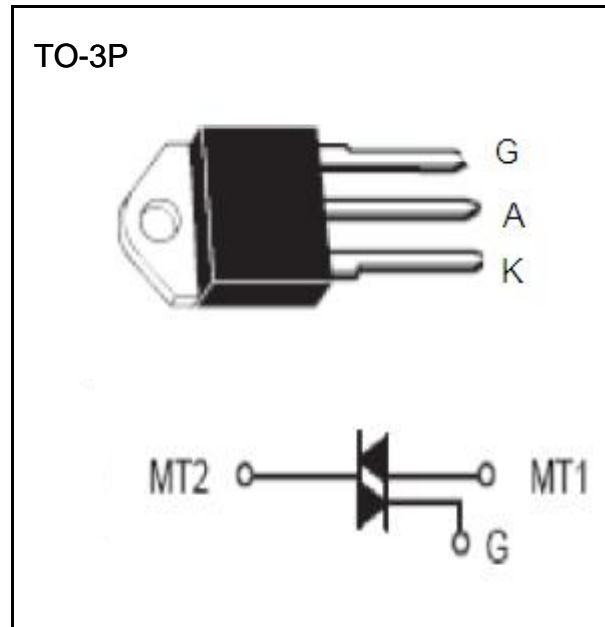
4 Quadrants TRIAC

Features

- IT(RMS): 40A
- VGT: 1.5V
- VDRM VRRM: 800/1000/1200/1600

Applications

Washing machine, vacuums, massager, solid state relay, AC Motor speed regulation and so on.



Absolute Maximum Ratings($T_j=25^{\circ}\text{C}$ unless otherwise specified)

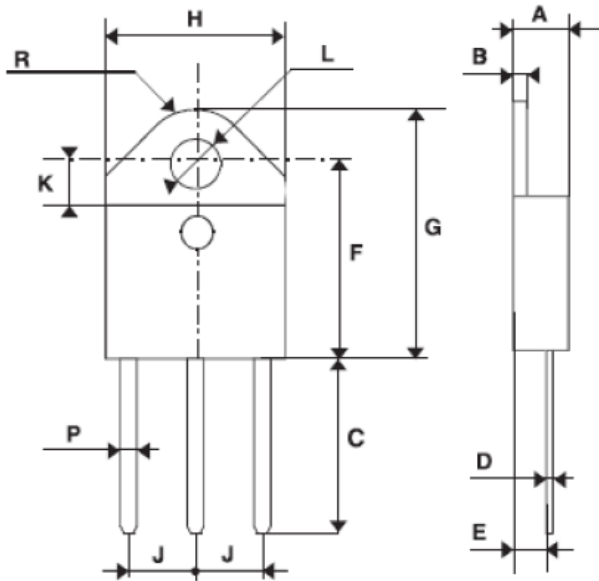
Symbol	parameter	Conditions	Ratings	Unit
VDRM VRRM	Repetitive Peak Off-State Voltage	BTA41-800	800	V
		BTA41-1000	1000	V
		BTA41-1200	1200	V
		BTA41-1600	1600	V
IT(RMS)	R.M.S On-State Current	$T_c=110^{\circ}\text{C}$	40	A
ITSM	Surge On-State Current	$f=50/60\text{Hz}$ $t_p=16.7\text{ms}/20\text{ms}$	400/420	A
I^2t	I^2t for fusing	$T_p=10\text{ms}$	880	A^2s
PG(AV)	Average Gate Power Dissipation	$T_j=125^{\circ}\text{C}$	1	W
IGM	Peak Gate Current	$T_j=125^{\circ}\text{C}$	4	A
T_j	Operating Junction Temperature		-40~125	$^{\circ}\text{C}$
TSTG	Storage Temperature		-40~150	$^{\circ}\text{C}$

Electrical Characteristics(T_j=25°C unless otherwise specified)

symbol	parameter		Test Conditions	Value	Unit
IDRM	Repetitive Peak Off-State Current		T _c =25°C	5	uA
			T _c =125°C	5	mA
IRRM	Repetitive Peak Reverse Current		T _c =25°C	5	uA
			T _c =125°C	5	mA
V _{TM}	Forward "on" voltage		I _T =60A, t _p =380us	1.55	V
V _{GT}	Gate trigger voltage		V _D =12V ,R _L =30Ω	≤1.5	V
di/dt	Critical rate of rise of on-state current	I,II,III	F=120Hz,T _j =125°C , I _G =2xI _{GT} ,t _r ≤100ns	≥ 20	A/ms
		IV			
I _{GT}	Gate trigger current	I,II,III	V _D =12V, R _L =30Ω	≤50	mA
		IV			
I _H	Holding current		I _T =0.2A	≤80	mA
V _{DG}	Gate non-trigger voltage	ALL	V _D =V _{DRM} , T _J =125°C	≥0.2	V
dv/dt	Critical-rate of rise of commutation voltage		T _J =125°C , V _D =2/3V _{DRM} ,Gate open circuit	≥800	V/us
R _{th(j-c)}	Thermal resistance		Junction to case	0.9	°C/W
R _{th(j-a)}	Thermal resistance		Junction to ambient	50	°C/W

PACKAGE MECHANICAL DATA

TO-3P Package Dimension



REF.	DIMENSIONS					
	Unit: mm			Unit: Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.4		4.6	0.173		0.181
B	1.45		1.55	0.057		0.061
C	14.35		15.60	0.565		0.614
D	0.5		0.7	0.020		0.028
E	2.7		2.9	0.106		0.114
F	15.8		16.5	0.622		0.650
G	20.4		21.1	0.815		0.831
H	15.1		15.5	0.594		0.610
J	5.4		5.65	0.213		0.222
K	3.4		3.65	0.134		0.144
L	4.08		4.17	0.161		0.164
P	1.20		1.40	0.047		0.055
R		4.60			0.181	

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