4 Quadrants TRIAC

Features

■IT(RMS): 40A

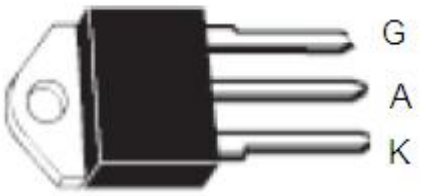
■VGT: 1.5V

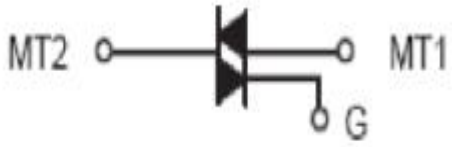
■VDRM VRRM: 800/1000/1200/1600

Applications

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

TO-3P





Absolute Maximum Ratings(Tj=25°C unless otherwise specifed)

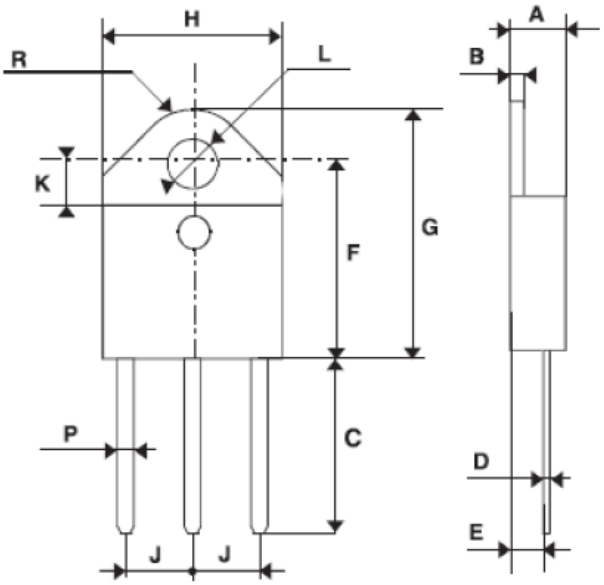
Symbol	parameter	Conditions	Ratings	Unit
VDRM VRRM	Repetitive Peak Off-State Voltage	BTA41-800	800	V
		BTA41-1000	1000	V
		BTA41-1200	1200	V
		BTA41-1600	1600	V
IT(RMS)	R.M.S On-State Current	Tc=110°C	40	A
ITSM	Surge On-State Current	f=50/60Hz tp=16.7ms/20ms	400/420	A
I²t	I²t for fusing	Tp=10ms	880	A²s
PG(AV)	Average Gate Power Dissipation	Tj=125°C	1	W
IGM	Peak Gate Current	Tj=125°C	4	A
Tj	Operating Junction Temperature		—40~125	°C
TSTG	Storage Temperature		—40~150	°C

Electrical Characteristics(Tj=25°C unless otherwise specifed)

symbol	parameter		Test Conditions	Value	Unit
IDRM	Repetitive Peak Off-State Current		Tc=25°C	5	uA
			Tc=125°C	5	mA
IRRM	Repetitive Peak Reverse Current		Tc=25°C	5	uA
			Tc=125°C	5	mA
VTM	Forward "on" voltage		IT=60A, tp=380us	1.55	V
VGT	Gate trigger voltage		VD=12V ,RL=30Ω	≤1.5	V
di/dt	Critical rate of rise of on-state current	I,II,III	F=120Hz,Tj=125°C , IG=2xIGT,tr≤100ns	≥ 20	A/ms
		IV			
IGT	Gate trigger current	I,II,III	VD=12V, RL=30Ω	≤50	mA
		IV			
IH	Holding current		IT=0.2A	≤80	mA
VDG	Gate non-trigger voltage	ALL	VD=VDRM, TJ=125°C	≥0.2	V
dv/dt	Critical-rate of rise of commutation voltage		TJ=125°C , VD=2/3VDRM ,Gate open circuit	≥800	V/us
Rth(j-c)	Thermal resistance		Junction to case	0.9	°C/W
Rth(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	