

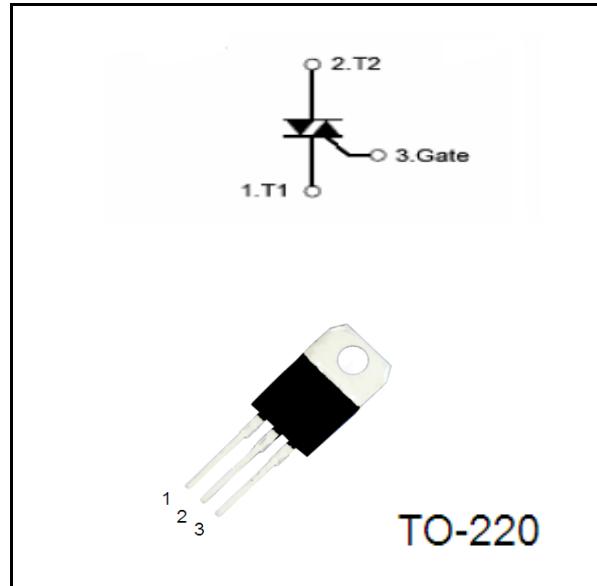
3 Quadrants TRIAC

Features

- IT(RMS): 6A
- VGT:1.3V
- VDRM VRRM: 600V and 800V

Applications

Washing machine,vacuums,
massager,solid state relay, AC
Motor speed regulation ,lighting
control ,temperatureand so on.



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

Symbol	parameter	Conditions	Ratings	Unit
VDRM	Repetitive Peak Off-State Voltage	BTA06-600	600	V
VRRM		BTA06-800	800	V
IT(RMS)	R.M.S On-State Current	$T_c=110^\circ\text{C}$	6	A
ITSM	Surge On-State Current	$f=50/60\text{Hz}$ $t_p=16.7\text{ms}/20\text{ms}$	65/67	A
I^2t	I^2t for fusing	$t_p=10\text{ms}$	23	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
Tj	Operating Junction Temperature		-40~125	$^\circ\text{C}$
TSTG	Storage Temperature		-40~150	$^\circ\text{C}$

Electrical Characteristics($T_c=25^\circ\text{C}$ unless otherwise specified)

symbol	parameter	Test Conditions	Value						Unit	
			TW	SW	CW	BW	C	B		
IDRM	Repetitive Peak Off-State Current	$T_c=25^\circ\text{C}$	≤ 5						uA	
		$T_c=125^\circ\text{C}$	≤ 1						mA	
IRRM	Repetitive Peak Reverse Current	$T_c=25^\circ\text{C}$	≤ 5						uA	
		$T_c=125^\circ\text{C}$	≤ 1						mA	
VTM	Forward "on" voltage	$IT=10\text{A}$ $t_p=380\text{us}$	1.55						V	
VGT	Gate trigger voltage	$VD=12\text{V}$ $,RL=30\Omega$	≤ 1.3						V	
di/dt	Critical-rate of rise of commutation current.	I,II,III	$IG=2XIGT, tr \leq 100\text{ns}, F=100\text{Hz}$	≥ 50						
		IV	z	≥ 10						
IGT	Gate trigger current	I,II,III	$VD=12\text{V}$ $RL=30\Omega$	≤ 5	≤ 10	≤ 25	≤ 50	≤ 25	≤ 50	mA
		IV		/	/	/	/	≤ 50	≤ 100	mA
IH	Holding current	IT=0.2A	≤ 10	≤ 15	≤ 35	≤ 60	≤ 25	≤ 50		mA
VGD	Gate non-trigger voltage	ALL	$VD=VDRM$ $TJ=125^\circ\text{C}, RL = 3.3\text{K}\Omega$	≥ 0.2						V
dv/dt	Critical-rate of rise of commutation voltage	TJ=125°C VD=2/3VDRM Gate open circuit	≥ 20	≥ 50	≥ 400	≥ 1000	≥ 200	≥ 400		V/us
Rth(j-c)	Thermal resistance	Junction to case	2.7							°C/W
Rth(j-a)	Thermal resistance	Junction to ambient	60							°C/W

characteristic curve

FIG.1:Gate characteristics

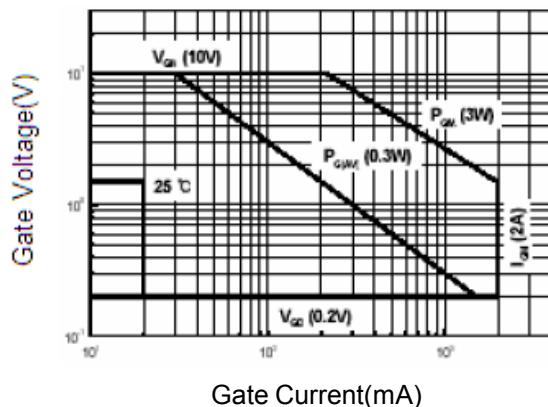


FIG.3:Gate trigger voltage vs junction temperature

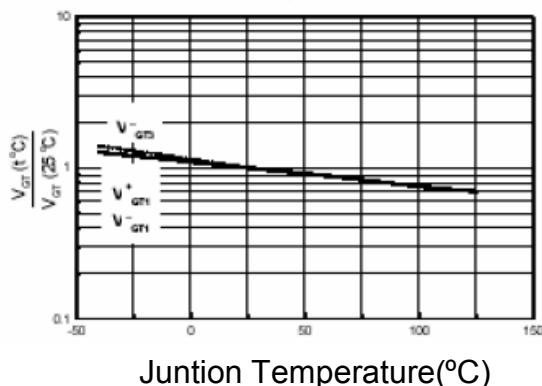


FIG.5:RMS On-state vs Allowable Case Temperature

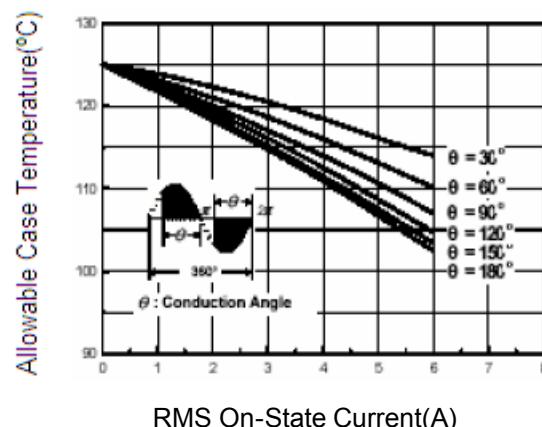


FIG.2: On-state characteristics(max)

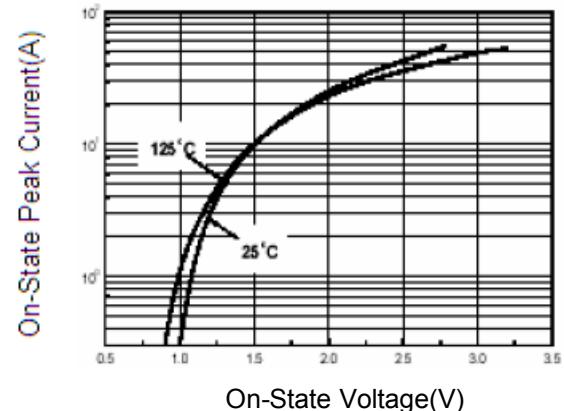


FIG.4:on-state current vs max power Dissipation

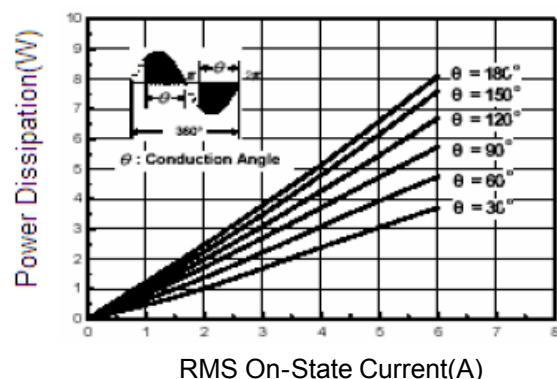
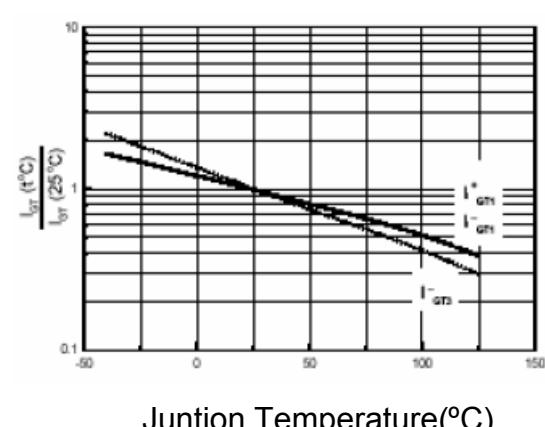
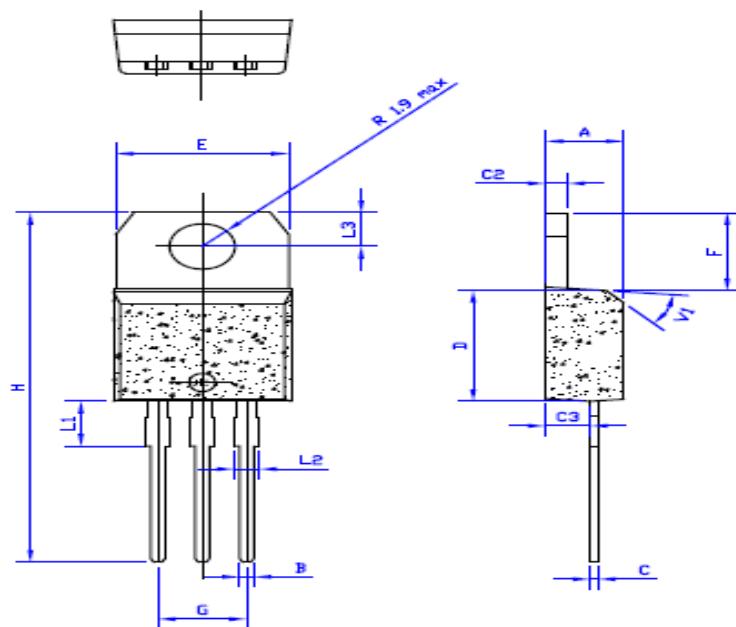


FIG.6:Gate trigger current vs junction temperature



PACKAGE MECHANICAL DATA

TO-220 Package Dimension



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.4		4.6	0.173		1.181
B	0.61		0.88	0.024		0.034
C	0.46		0.70	0.018		0.027
C2	1.23		1.32	0.048		0.051
C3	2.4		2.72	0.094		0.107
D	8.6		9.7	0.338		0.382
E	9.8		10.4	0.386		0.409
F	6.2		6.6	0.244		0.259
G	4.8		5.4	0.189		0.213
H	28.0		29.8	11.0		11.7
L1		3.75			0.147	
L2	1.14		1.7	0.044		0.066
L3	2.65		2.95	0.104		0.116
V1		40°			40°	

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