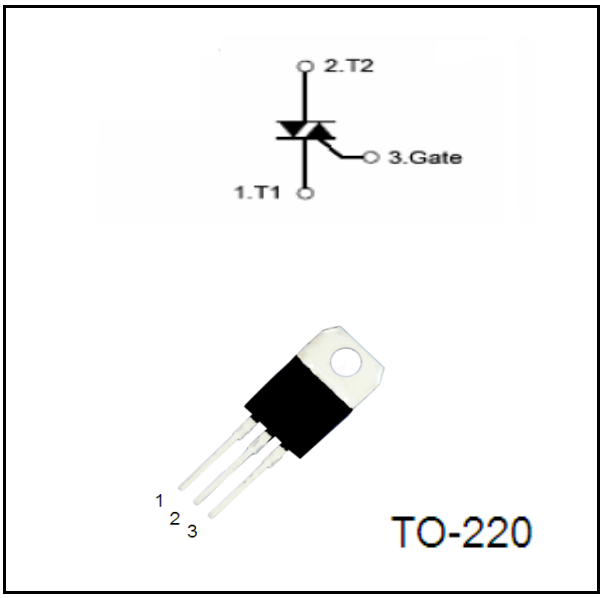
3 Quadrants / 4 Quadrants TRIAC

Features

■IT(RMS): 25A

■VGT: 1.5V

■VDRM VRRM:800Vand1000V



Applications

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

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

Symbol	parameter	Conditions	Ratings	Unit
VDRM VRRM	Repetitive Peak Off-State Voltage	BTA24-800	800	V
		BTA24-1000	1000	V
IT(RMS)	R.M.S On-State Current	Tc=110°C	25	A
ITSM	Surge On-State Current	f=50/60Hz tp=16.7ms/20ms	250/260	A
I^2t	I^2t for fusing	Tp=10ms	340	A^2s
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(Tc=25°C unless otherwise specifed)

symbol	parameter		Test Conditions	Value			Unit
				CW	BW	B	
IDRM	Repetitive Peak Off-State Current		Tc=25°C	5			uA
			Tc=125°C	3			mA
IRRM	Repetitive Peak Reverse Current		Tc=25°C	5			uA
			Tc=125°C	3			mA
VTM	Forward "on" voltage		IT=35A ,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	≥50			A/us
		IV		≥10			A/us
IGT	Gate trigger current	I,II,III	VD=12V, RL=30Ω	≤35	≤50	≤50	mA
		IV		/	/	≤100	mA
IH	Holding current		IT=0.2A	≤60	≤80	≤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	≥400	≥1000	≥500	V/us
Rth(j-c)	Thermal resistance		Junction to case	1.7			°C/W
Rth(j-a)	Thermal resistance		Junction to ambient	60			°C/W

characteristic curve

FIG.1:Gate characteristics

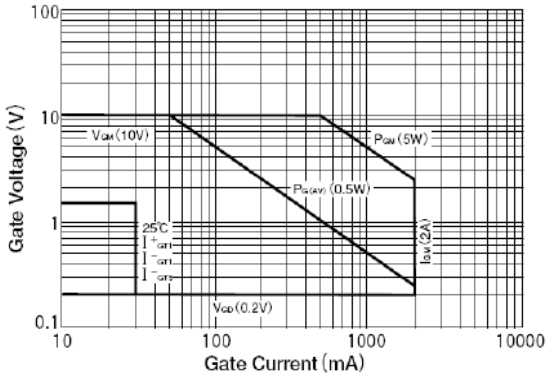


FIG.2: On-state characteristics(max)

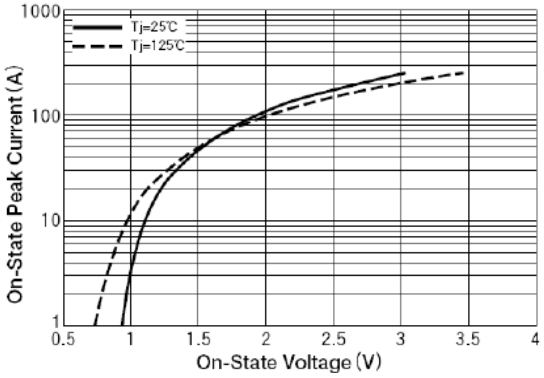


FIG.3:Gate trigger voltage vs junction temperature

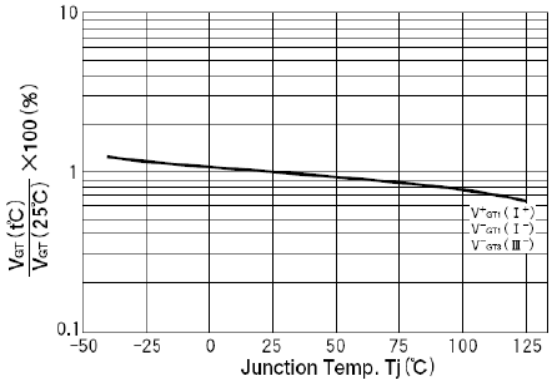


FIG.4:on-state current vs max power Dissipation

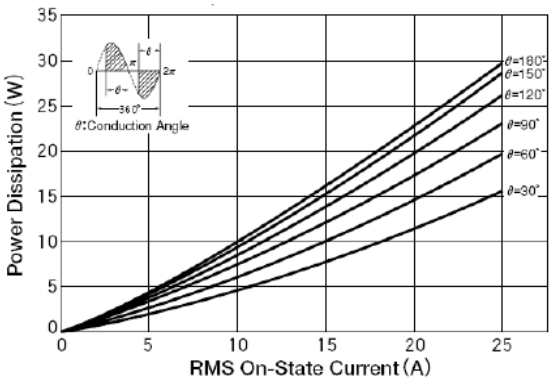


FIG.5:RMS On-state vs Allowable Case Temperature

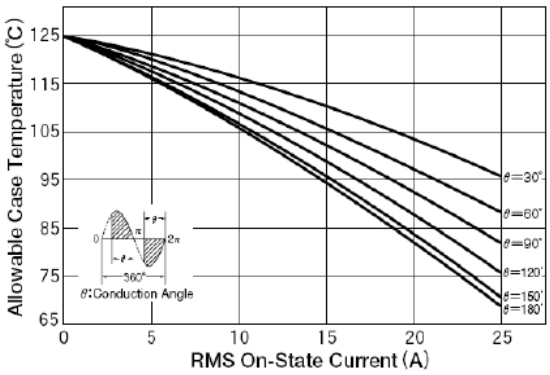
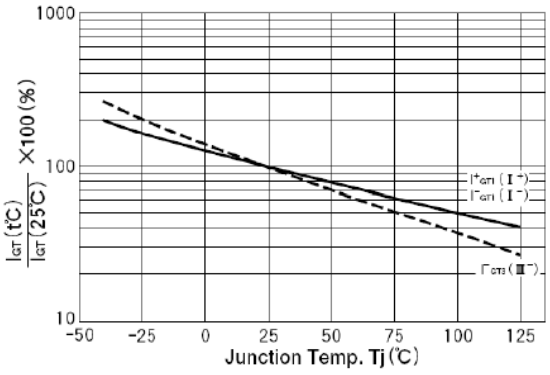
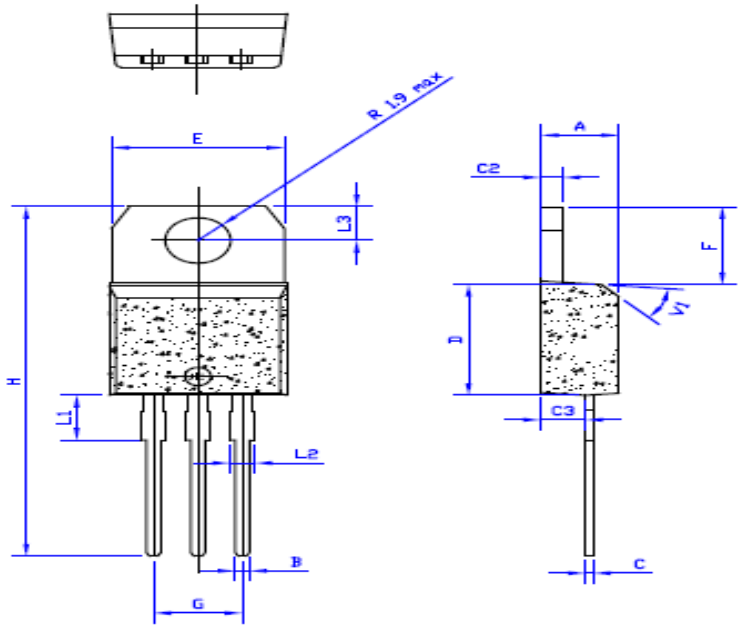


FIG.6:Gate trigger current vs junction temperature



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°	