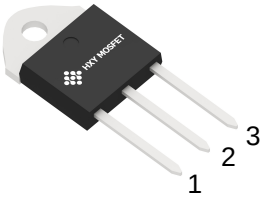
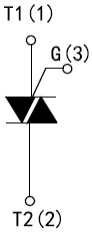
Description

High current density due to double mess technology, SIPOS and Glass passivation. BTA41-800BRG series triacs is suitable for general purpose AC switching. They can be used as an ON/OFF function is applications such as static relays, heating regulation, induction motor stating circuits or phase control operation light dimmers, motor speed controllers.

BTA41-800BRG series are 3 Quadrants triacs, They are specially recommended for use on inductive loads.



TOP-3



Absolute Maximum Ratings (T_a=25°C unless otherwise noted)

Symbol	Parameter	Test condition	Value	Unit
V_{DRM}/ V_{RRM}	Repetitive peak off-state voltage	T_j=25°C	800	V
V_{DSM}	Non repetitive surge peak off-state voltage	T_P =10ms,T_j=25°C	900	V
V_{RSM}	Non repetitive peak reverse voltage	T_P =10ms,T_j=25°C	900	V
$I_{T(RMS)}$	RMS on-state current	Tc=90°C Tc=70°C	41	A
I_{TSM}	Non repetitive surge peak on-state current	F=60Hz, t=16.7ms	430	A
		F=50Hz, t=20ms	410	
I^2t	I^2t value	tp=10ms	410	A^2s
dI /dt	Critical rate of rise of on-state current	I_G=2*I_{GT}, tr≤100ns, F=120HZ, T_j=125°C	100	A/μs
I_{GM}	Peak gate current	tp=20μs, T_j=125°C	4	A
P_{GM}	Peak gate power dissipation	tp=20μs, T_j=125°C	10	W
$P_{G(AV)}$	Average gate power	T_j=125°C	1	W
T_{STG}	Storage temperature		-40~+150	°C
T_j	Operating junction temperature		-40~+125	

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

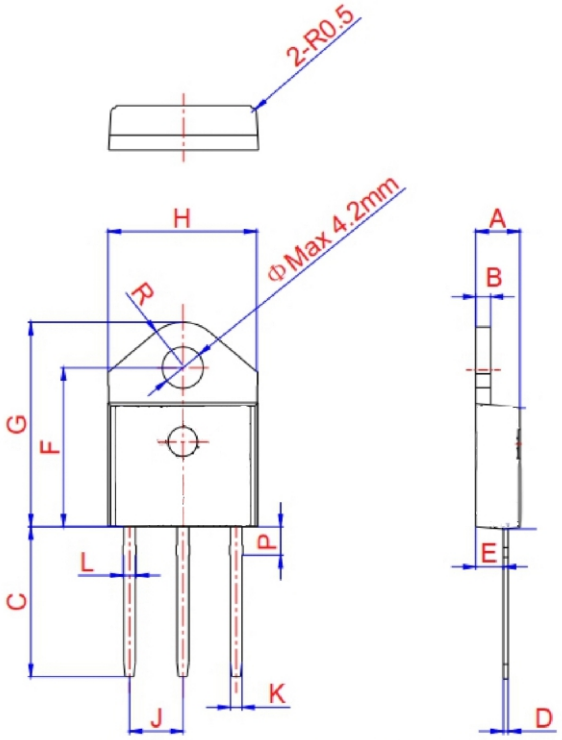
Symbol	Parameter	Test condition			Value	Unit
I_{GT}	Gate trigger current	V_D=12V, R_L=33Ω,	Ⅰ-Ⅱ-Ⅲ	Max	50	mA
V_{GT}	Gate trigger voltage		Ⅰ-Ⅱ-Ⅲ	Max	1.5	V
V_{GD}	Non-triggering gate voltage	V_D =V_{DRW}, T_j=125°C R_L=3.3KΩ		Min	0.2	V
I_H	Holding current	I_T=100mA,		Max	60	mA
I_L	Latching current	I_G=1.2I_{GT},	Ⅰ-Ⅲ	Max	70	
			Ⅱ	Max	80	
D_V/dt	Critical rate of rise of off-state	V_D=67%V_{DRM}, Gate Open T_j=125°C		Min	500	V/μs
(D_V/dt)c	Critical rate of rise of off-state	(dI/dt)c=8.8A/ms T_j=125°C		Min	12.5	V/μs
V_{TM}	On-state Voltage	I_{TM}=28 A ,tp=380μs , T_j=25 °C			1.55	V
I_{DRM} / I_{RRM}	Repetitive peak off-state current	V_D=V_{DRM}/V_{RRM}, T_j=25°C			5	μA
		V_D=V_{DRM}/V_{RRM},T_j=125°C			2.5	mA

Static Characteristics

Symbol	Parameter	Value	Unit
Rth (j-c)	Junction to case (AC)	2.1	°C/W

Package Information

TOP-3



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.40		4.60	0.173		0.181
B	1.45		1.55	0.057		0.061
C	14.35		15.60	0.565		0.614
D	0.50		0.70	0.020		0.028
E	2.70		2.90	0.106		0.114
F	15.80		16.50	0.622		0.650
G	20.40		21.10	0.803		0.831
H	15.10		15.50	0.594		0.610
J	5.40		5.65	0.213		0.222
K	1.10		1.40	0.043		0.055
L	1.35		1.50	0.053		0.059
P	2.80		3.00	0.110		0.118
R		4.35			0.171	

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