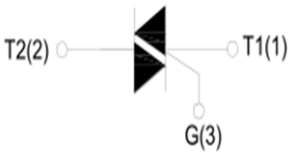
东莞市环昕微实业有限公司

BTA201-800E.PDF

TO-92

Features
- IT(RMS): 1A
- VDRM VRRM: 800V



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value
IT(RMS)	RMS on-state current	1A
VDRM	Repetitive peak off-state voltage	800V
VRRM	Repetitive peak reverse voltage	800V
Tj	Operating junction temperature range	～40℃~125℃
Tstg	Storage junction temperature range	～40℃~150℃
VDSM	Non repetitive surge peak Off-state voltage	VDRM+100V
VRSM	Non repetitive peak reverse voltage	VRRM+100V
ITSM	Non repetitive surge peak on-state current (full cycle, F=50Hz)	15A
I²t	I²t value for fusing (tp=10ms)	1.25A²S
dI/dt	Critical rate of rise of on-state current(I G =2×I GT)	50A/μs
IGM	Peak gate current	1A
PG(AV)	Average gate power dissipation	0.1W
PGM	Peak gate power	0.5W

ELECTRICAL CHARACTERISTICS (Tj =25℃ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value
			BTA201-800E
IGT	VD=12V RL=33Ω	I-II-III	＜10mA
		IV	/
VGT		ALL	＜1.3V
VGD	VD=VDRM Tj=125℃ RL=3.3KΩ	ALL	＞0.2V
IL	IG=1.2IGT	I-III	＜20mA
		II	＜40mA
IH	IT=100mA		＜15mA
dV/dt	VD=2/3VDRM Gate Open Tj=125℃		＞200V/μs
VTM	ITM=2A tp=380μs （Tj =25℃）		＜1.5V
IDRM	VD=VDRMVR=VR RM	Tj =25℃	＜50μA
IRRM		Tj =150℃	＜1mA
Rth(j-c)	junction to case(AC)	TO-92	23℃/W

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FIG.1 Maximum power dissipation versus RMSon-state current

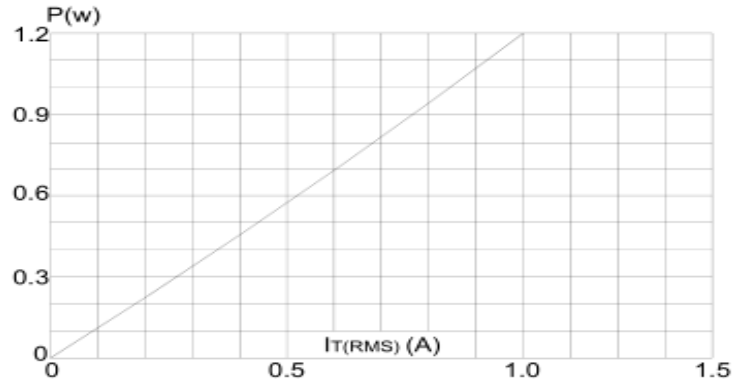


FIG.2: RMS on-state current versus case temperature

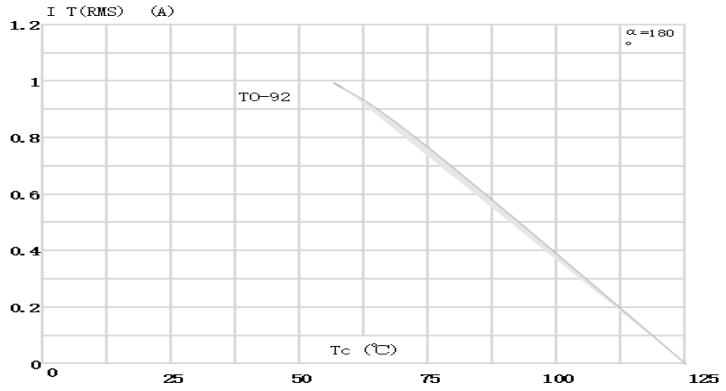


FIG.3: Surge peak on-state current versusnumber of cycles

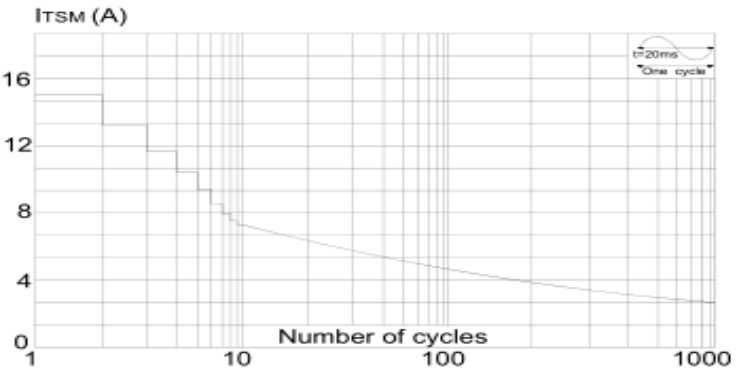


FIG.4: On-state characteristics (maximumvalues)

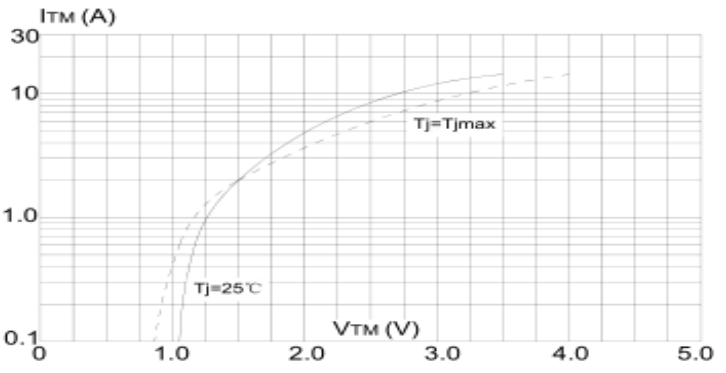


FIG.5: Relative variations of gate trigger current versus junction temperature

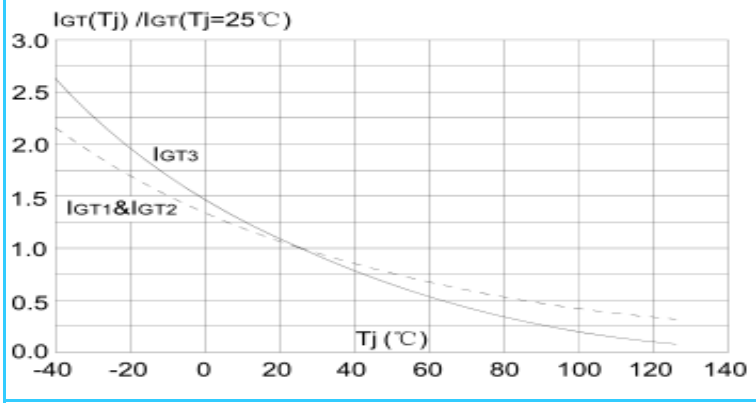
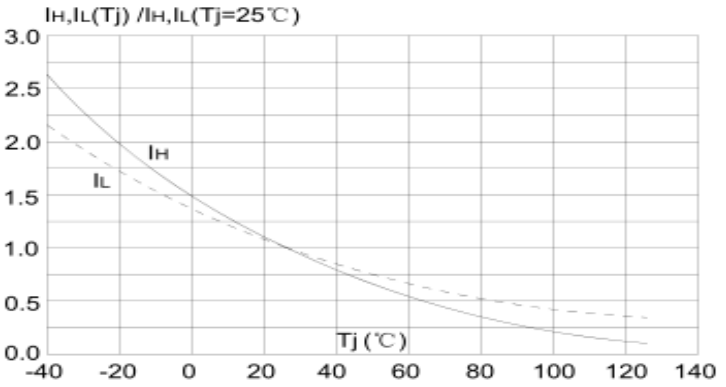
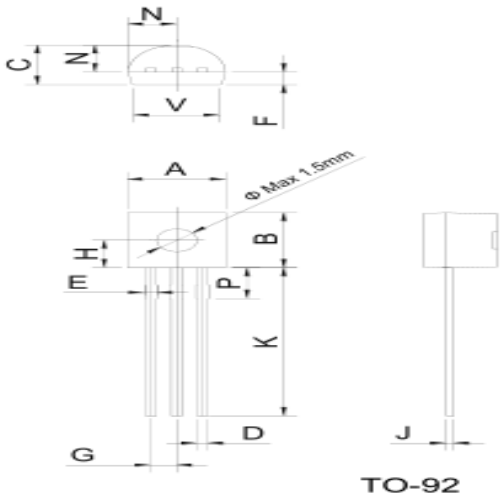


FIG.6: Relative variations of gate trigger current, holding current and latching current versusjunction temperature



PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.45		5.20	0.175		0.205
B	4.32		5.33	0.170		0.210
C	3.18		4.19	0.125		0.165
D	0.407		0.533	0.016		0.021
E	0.60		0.80	0.024		0.031
F	-	1.1	-	-	0.043	-
G	-	1.27	-	-	0.050	-
H	-	2.30	-	-	0.091	-
J	0.36		0.50	0.014		0.020
K	12.70		15.0	0.500		0.591
N	2.04		2.66	0.080		0.105
P	1.86		2.06	0.073		0.081
V	-		4.3	-		0.169

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