

一、 / Descriptions

TO-92

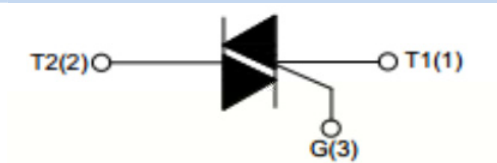
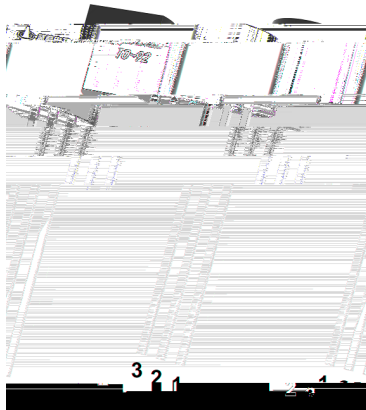
Triac in a TO-92 Plastic Package.

二、 / Features

Low power gate trigger circuits.

三、 / Applications

Suitable for general purpose AC switching .Such as static relays,heating regulation,induction motor starting circuits,motor speed controllers,etc.

四、 / Equivalent Circuit**五、 / Pinning**

PIN1 Main Terminal 2

PIN 2 Gate

PIN 3 Main Terminal 1

六、 / Marking

See Marking Instructions.

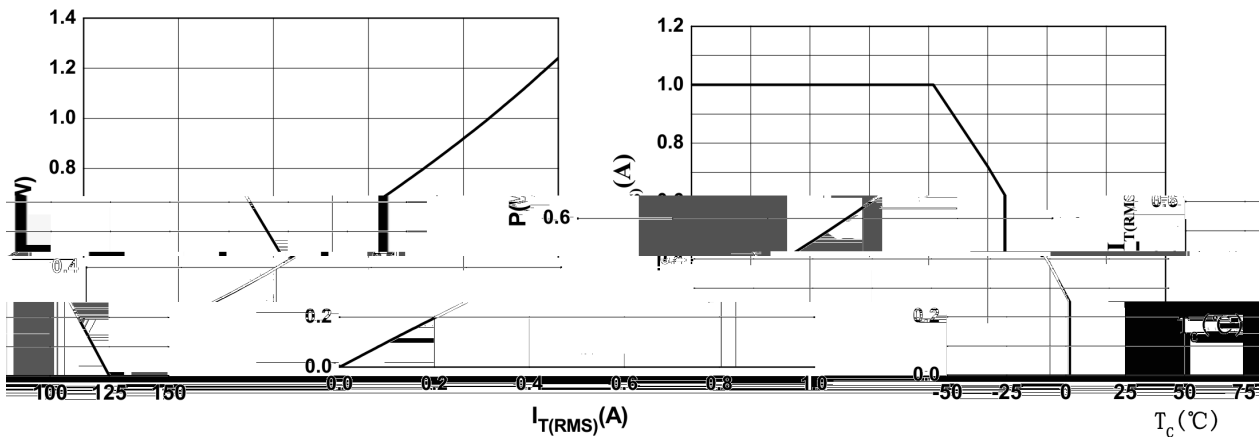
绝对最大额定值 (Ta=25℃)

Parameter	Symbol	Rating	Unit
Repetitive peak off-state/reverse voltages(Tj=25℃)	V _{DRM} /V _{R_{RM}}	600	V
RMS on-state current(T _C =110℃)	I _{T(RMS)}	1	A
Non repetitive surge peak on-state current(full cycle, T _j =25℃)	I _{TSM(t=20ms)}	16	A
Critical rate of rise of on-state current (I _G =2I _{GT} , f=100Hz T _j =125℃)	dI/dt I-II-III	50	A/μs
	dI/dt IV	30	
Peak gate current(t _p =20μs T _j =125℃)	I _{GM}	2.0	A
Average gate power dissipation(T _j =125℃)	P _{G(AV)}	0.5	W
Operating junction temperature range	T _j	-40 ~ 125	
Storage junction temperature range	T _{stg}	-40 ~ 150	
Junction to ambient(AC)	R _{th(j-a)}	150	°C/W
Junction to case for(AC)	R _{th(j-c)}	60	

电 气 特 性 (Tj=25℃)
无缓冲和低电平4象限 / Snubberless and logic level α 4 quadrants

Symbol	Test Conditions	Quadrant	Value		Unit
I _{GT}	V _D =12V R _L =33Ω	I-II-III	Max.	5	mA
		IV		10	
V _{GT}	V _D =12V R _L =33Ω	I-II-III-IV	Max.	1.3	V
V _{GD}	V _D =V _{DRM} R _L =3.3KΩ T _j =125	I-II-III-IV	Min.	0.2	V
I _L	I _G =1.2I _{GT}	I-III-IV	Max.	5	mA
		II		20	
I _H	I _T =50mA		Max.	7	mA
dV/dt	V _D =67% V _{DRM} Gate Open	T _j =125	Min.	120	V/μs
V _{TM}	I _{TM} =1.4A t _p =380μs	T _j =25	Max.	1.45	V
I _{DRM}	V _D =V _{DRM} V _R =V _{R_{RM}}	T _j =25		5	μA
I _{R_{RM}}		T _j =125		0.2	mA

Electrical Characteristic Curve



versus case

FIG.1 Maximum power dissipation versus RMS on-state current

FIG.2: RMS on-state current temperature

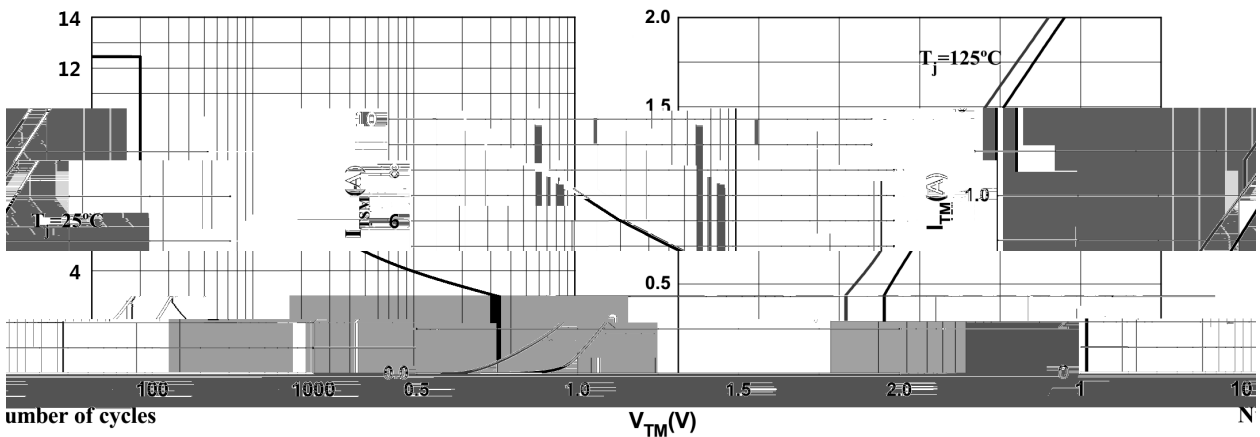
peak on-state current versus
number of cycles

FIG.4: On-state characteristics

FIG.3: Surge current

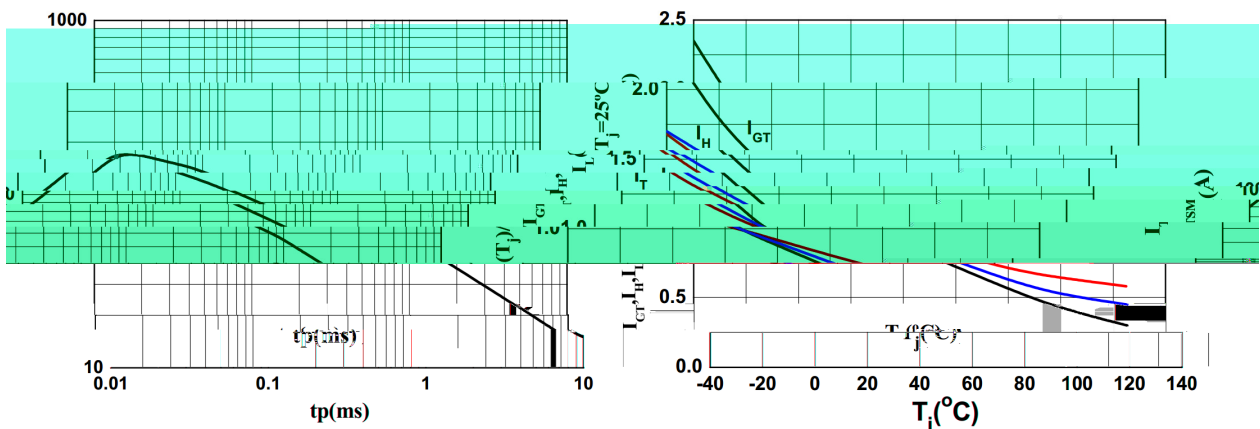


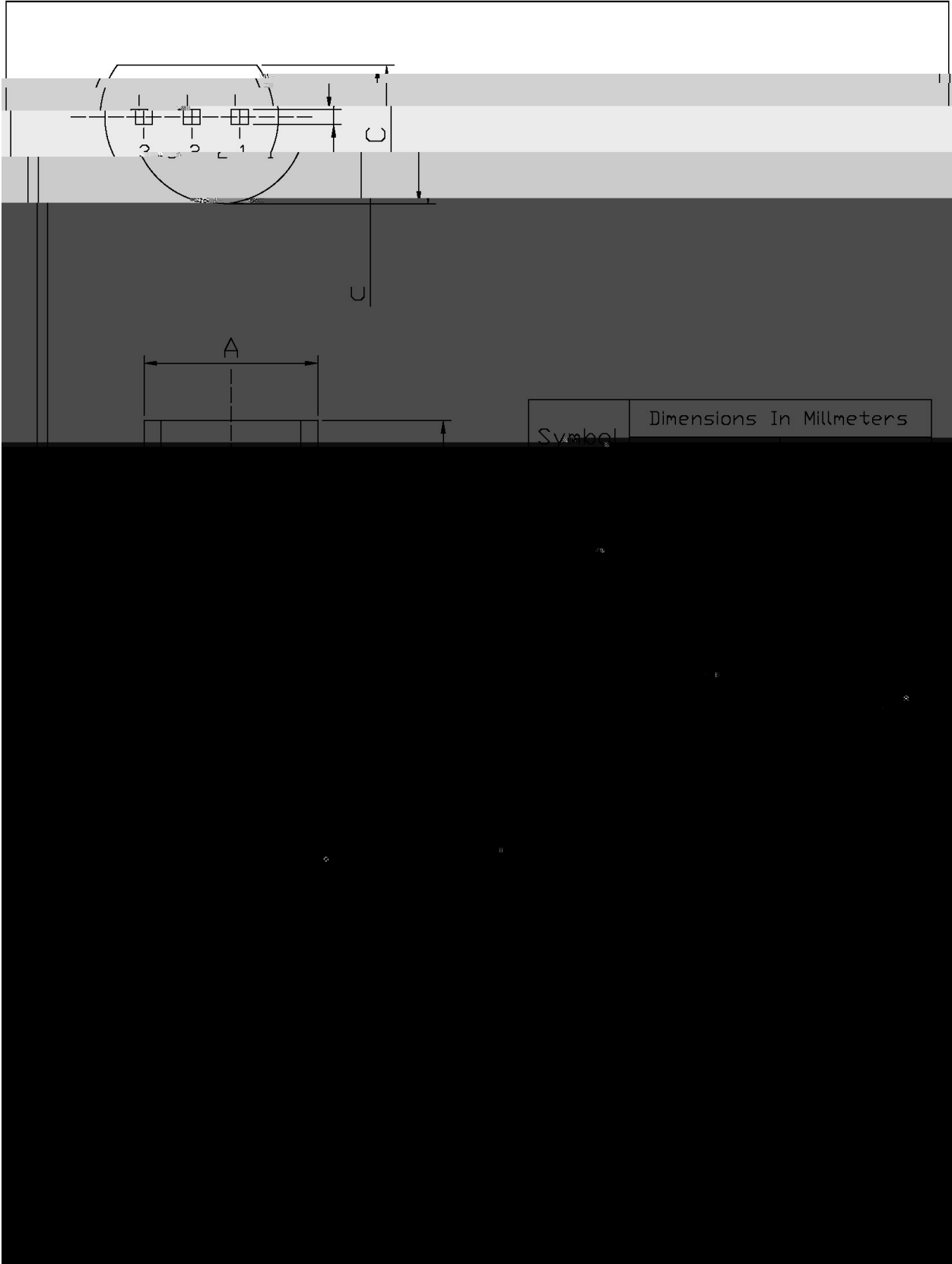
FIG.5: On-state characteristics

current, rising current and falling current
versus junction temperature
 I: $dI/dt < 50 \text{ A}/\mu\text{s}$
 II: $dI/dt < 50 \text{ A}/\mu\text{s}$
 III: $dI/dt < 50 \text{ A}/\mu\text{s}$
 IV: $dI/dt < 30 \text{ A}/\mu\text{s}$

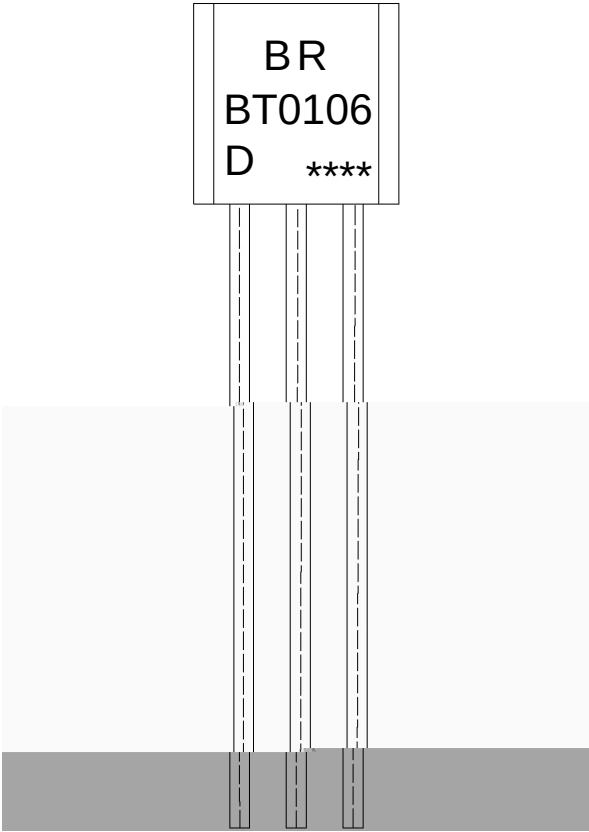
⌘ É Ò Ì ¢ / Package Dimensions

T0-92

Unit: mm



1. 标记 / Marking Instructions



BR
BT0106
D: I_{GT}

Note:

BR: Company Code
BT0106: Product Type Code
D: I_{GT} Level Code
****: Lot No. Code, code change with Lot No

↓ \$ 71 W'E V f (Ω) / Temperature Profile for Dip Soldering(Pb-Free)

- 1251506090sec;

2255±55±0.5sec;

3210/sec.
- Note:
1.Preheating:25~150, Time:60~90sec.
2.Peak Temp.:255±5, Duration:5±0.5sec.
3. Cooling Speed: 2~10/sec.

↓ Ü 'Y T / Resistance to Soldering Heat Test Conditions

270±510±1 sec.Temp.:270±5Time:10±1 sec

9 — / Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm3)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195

/ AMMO

Package Type	Units					Dimension (unit mm3)		
	Units/tape /	Tape/Inner Box /	Rows/Inner Box /	Columns/Inner Box /	Units/Outer Box /	Bag	Inner Box	Outer Box