



# Z0105NT-O-T-B-A

## 主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	1.0A
$V_{DRM}$	800V
$I_{GT}$	5mA

## 用途

- 交流开关
- 相位控制

## 产品特性

- 玻璃钝化芯片, 高可靠性和一致性
- 低通态电流和高浪涌电流能力
- 环保 RoHS 产品

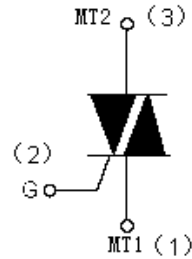
## APPLICATIONS

- AC switching
- Phase control

## FEATURES

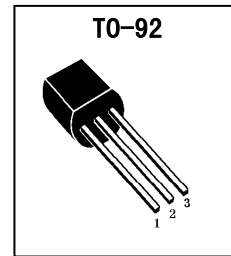
- Glass-passivated mesa chip for reliability and uniform
- Low on-state voltage and High  $I_{TSM}$
- RoHS products

## 封装 Package



序号 Pin	引线名称 Description
1	主电极 1 MT1
2	门极 G
3	主电极 2 MT2

TO-92



## 订货信息 ORDER MESSAGES

订货型号 Order code	印记 Marking	封装 Package	包装 Packaging
Z0105NT-O-T-B-A	Z0105NT	TO-92	编带 Brede

说明: O: 有卤塑封料; T: TO-92; B: 管腿成型; A: 编带包装;

Note: O: Halogen; T: TO-92; B: Forming; A: Brede packaging;



绝对最大额定值 ABSOLUTE RATINGS ( $T_c=25^\circ\text{C}$ )

项 目 Parameter	符 号 Symbol	试 验 条 件 Condition	数 值 Value	单 位 Unit
重复峰值断态电压 Repetitive peak off-state voltage	$V_{\text{DRM}}$		$\pm 800$	V
通态方均根电流 On-state RMS current	$I_{\text{T(RMS)}}$	full sine wave	1.0	A
非重复浪涌峰值通态电流 Non-repetitive surge peak on-state current	$I_{\text{TSM}}$	full sine wave ,t=20ms	10	A
	$I^2t$	t=10ms	0.41	$\text{A}^2\text{s}$
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	dl/dt	MT1(-),MT2(+),G(+); MT1(-),MT2(+),G(-); MT1(+),MT2(-),G(-)	50	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	$I_{\text{GM}}$		0.5	A
平均门极功率 Average gate power	$P_{\text{G(AV)}}$		0.1	W
存储温度 Storage temperature	$T_{\text{stg}}$		-40~150	$^\circ\text{C}$
操作结温 Operation junction temperature	$T_{\text{VJ}}$		125	$^\circ\text{C}$





电特性 ELECTRICAL CHARACTERISTIC (T<sub>c</sub>=25°C)

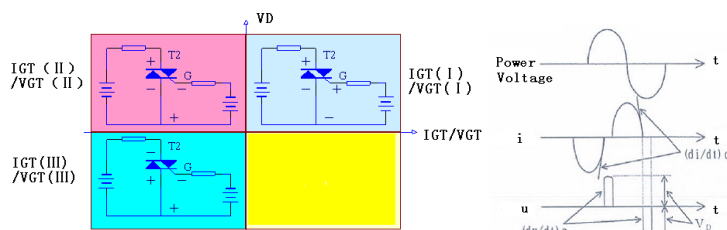
项 目 Parameter	符 号 Symbol	测 试 条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
峰值重复断态电流 Peak Repetitive Blocking Current	I <sub>DRM</sub>	V <sub>DM</sub> =V <sub>DRM</sub> , T <sub>j</sub> =125°C, gate open	-	-	0.5	mA
峰值通态电压 Peak on-state voltage	V <sub>TM</sub>	I <sub>TM</sub> =1.5A	-	-	1.6	V
门极触发电压 Gate trigger voltage	V <sub>GT</sub>	V <sub>D</sub> = 6 V, R <sub>L</sub> = 6 Ω, R <sub>G</sub> = 330 Ω	-	-	2.0	V
门极不触发电压 Gate non-trigger voltage	V <sub>GD</sub>	T <sub>j</sub> = 125°C, V <sub>D</sub> = 1/2 V <sub>DRM</sub>	0.1	-	-	V
Z0105NT						
项 目 Parameter	符 号 Symbol	测 试 条 件 Condition	Z0105NT			单位 Unit
门极触发电流 Gate trigger current	I <sub>GT</sub>	V <sub>D</sub> = 6 V, R <sub>L</sub> = 6 Ω, R <sub>G</sub> = 330 Ω, MT1(-),MT2(+),G(+)	Max.	5		mA
		MT1(-),MT2(+),G(-)	Max.	5		mA
		MT1(+),MT2(-),G(-)	Max.	5		mA
换向电压上升率 Critical rate of change of commutating voltage	(dV/dt) <sub>c</sub>	V <sub>DM</sub> =400V, T <sub>j</sub> =125°C, (dI/dt) <sub>c</sub> =-0.5A/ms,	Min.	2		V/μs

热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到管壳的热阻 Thermal resistance junction to case	R <sub>th(j-c)</sub>	full cycle (TO-92) Case temperature is measured at the MT <sub>2</sub> terminal 1.5 mm away from the molded case	-	-	50	°C/W

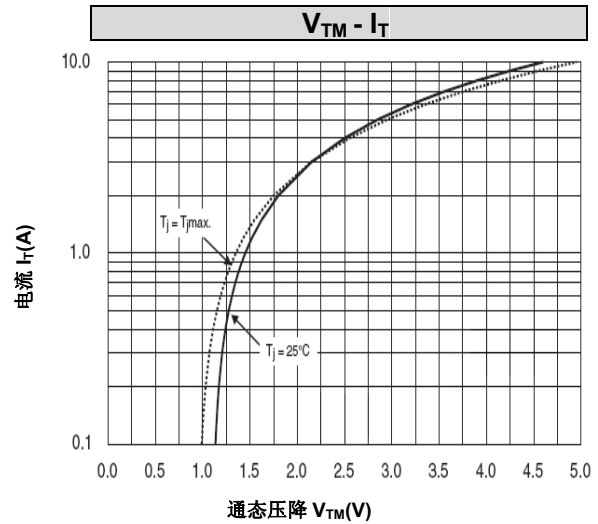
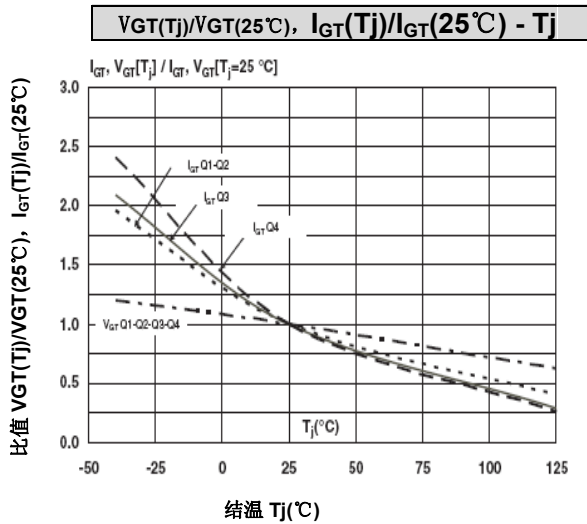
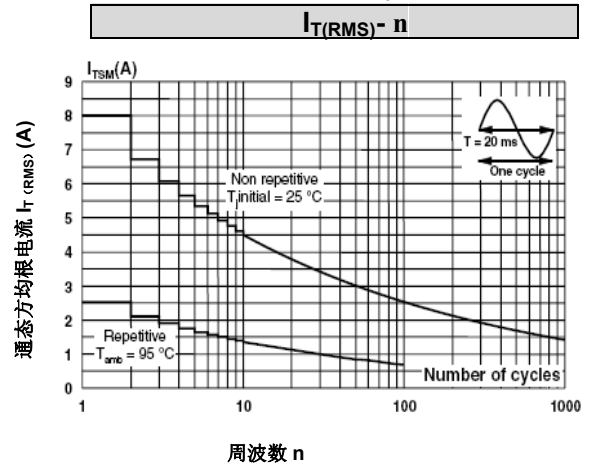
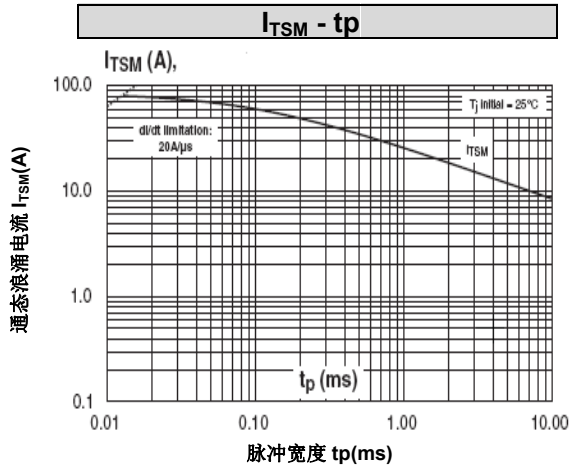
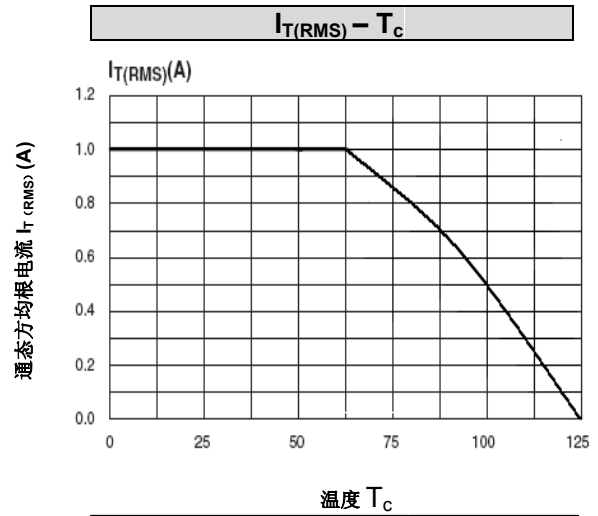
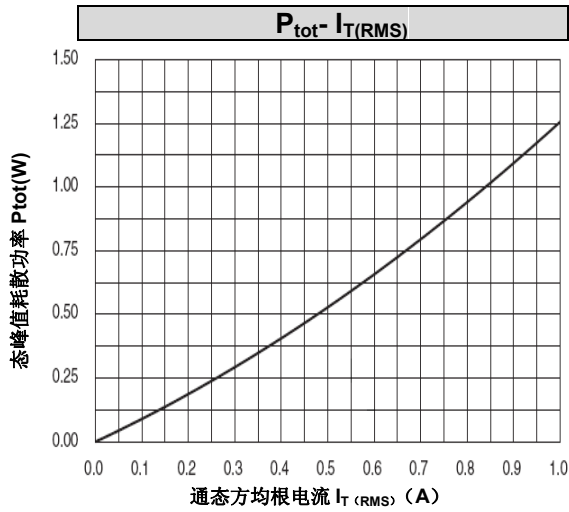
触发象限和 (dV/dt)<sub>c</sub>示意图

Triggering Qquadrant Diagram and (dV/dt)<sub>c</sub>





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

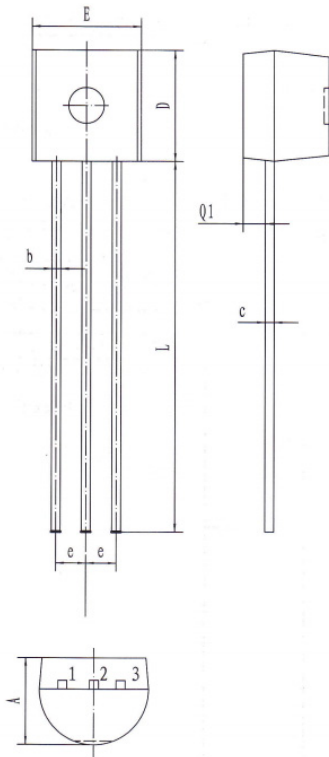




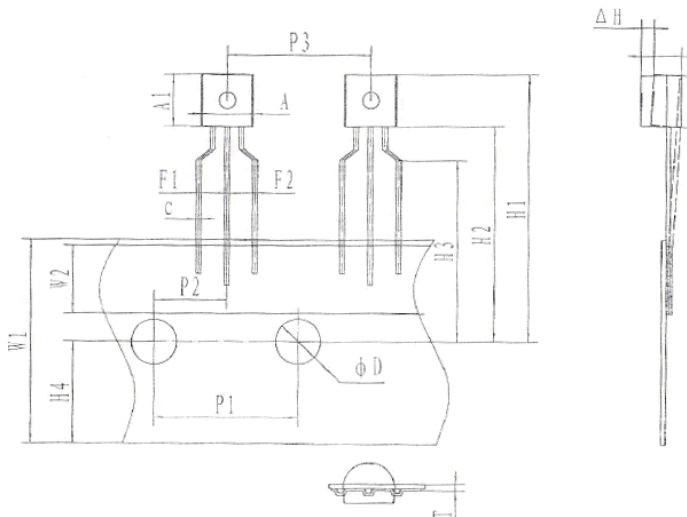
外形尺寸 PACKAGE MECHANICAL DATA

TO-92

单位 Unit : mm



符号 Symbol	尺寸 (mm) Size (mm)
A	3.30-3.90
b	0.35-0.55
c	0.31-0.51
D	4.30-4.90
E	4.30-4.90
e	1.17-1.37
L	12.50-15.50
Q1	0.85-1.00



符号 Symbol	尺寸 (mm) Size (mm)
A	4.30-4.90
A1	4.30-4.90
A2	3.50-3.70
c	TYP 0.45
F1/F2	2.20-2.80
W1	17.5-18.5
W2	5.50-6.50
H1	22.0-27.0
H2	18.0-20.0
H3	15.0-17.0
H4	8.50-9.50
P1	12.5-12.9
P2	6.00-6.70
P3	12.5-12.9
T	0.40-0.45
φ D	3.80-4.20
ΔH	0.00-1.00

印记说明 (Marking)

TradeMark  
Chip Code  
GD—Package code  
**Z0105**  
NT TAHP—Serial number  
Code number





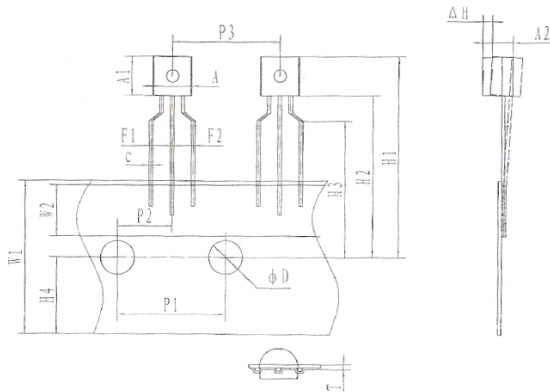
包装示意图 PACKING SCHEMATIC



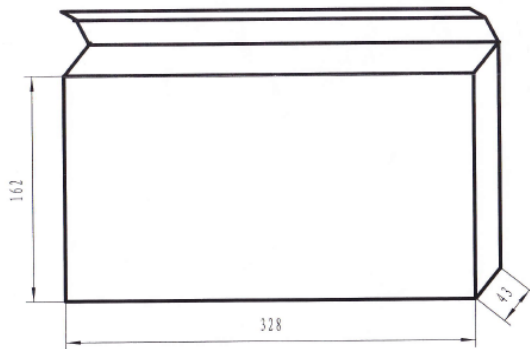
Brede packing  
编带包装示意图

Inside casing  
内包装示意图

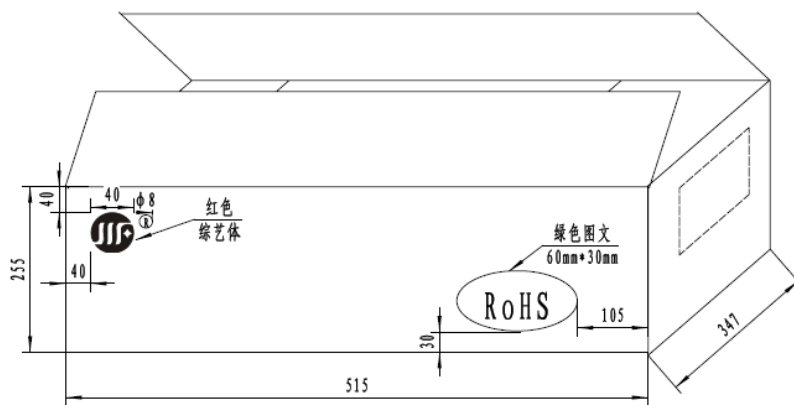
Outside casing  
外包装示意图



符号 Symbol	尺寸 (mm) Size (mm)
A	4.30-4.90
A1	4.30-4.90
A2	3.50-3.70
c	TYP 0.45
F1/F2	2.20-2.80
W1	17.5-18.5
W2	5.50-6.50
H1	22.0-27.0
H2	18.0-20.0
H3	15.0-17.0
H4	8.50-9.50
P1	12.5-12.9
P2	6.00-6.70
P3	12.5-12.9
T	0.40-0.45
φD	3.80-4.20
ΔH	0.00-1.00



包装Package	数量munber
内包装Inside casing	2000
大包Inside casing	30000





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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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**附录 (Appendix) : 修订记录 (Revision History)**

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes

