



# Z0103NT

## 主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	1.0A
$V_{DRM}$	800V
$I_{GT}$	3mA

### 用途

交流开关  
相位控制

### APPLICATIONS

AC switching  
Phase control

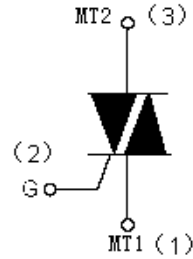
### 产品特性

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

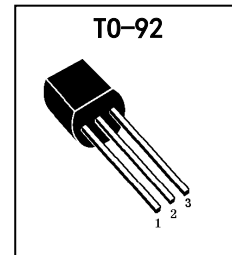
### FEATURES

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



## 订货信息 ORDER MESSAGES

订货型号 Order codes				印 记 Marking	封 装 Package
有卤-编带弹带 盒装	无卤-编带弹带盒 装	有卤-袋装	无卤-袋装		
Halogen-Tape	Halogen-Free-Tape	Halogen-Bag	Halogen-Free-Bag	Z0103NT	TO-92
Z0103NT-T-E	Z0103NT-T-ER	Z0103NT-T-C	Z0103NT-T-CR		



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	8	A
		full sine wave ,t=16.7ms	8.5	A
		$I^2t$	t=10ms	0.36
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	A/ $\mu$ s
峰值门极电流 Peak gate current	$I_{\text{GM}}$		1	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> =2A	-	-	1.7	V
门极触发电压 Gate trigger voltage	V <sub>GT</sub>	V <sub>DM</sub> =12V, R <sub>L</sub> =100Ω	-	-	1.5	V
门极触发电流 Gate trigger current	I <sub>GT</sub>	MT1(-),MT2(+),G(+)	-	-	3	mA
		MT1(-),MT2(+),G(-)	-	-	3	mA
		MT1(+),MT2(-),G(-)	-	-	3	mA
		MT1(+),MT2(-),G(+)	-	-	6.5	mA
维持电流 Holding current	I <sub>H</sub>	V <sub>DM</sub> =12V, I <sub>GT</sub> =0.1A	-	-	7	mA
擎住电流 Latching current	I <sub>L</sub>	V <sub>DM</sub> =12V, I <sub>GT</sub> =0.1A	-	-	15	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	V <sub>DM</sub> =67% V <sub>DRM(MAX)</sub> , T <sub>j</sub> =125°C, gate open	-	-	10	V/μs

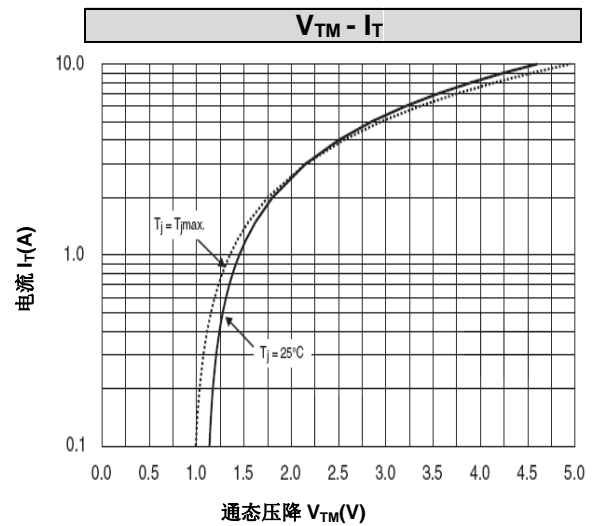
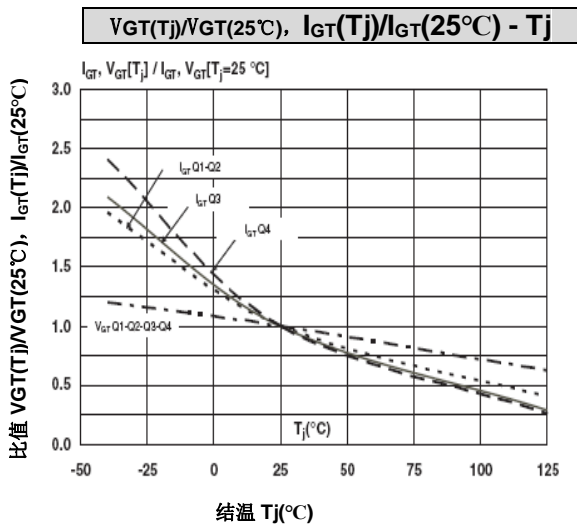
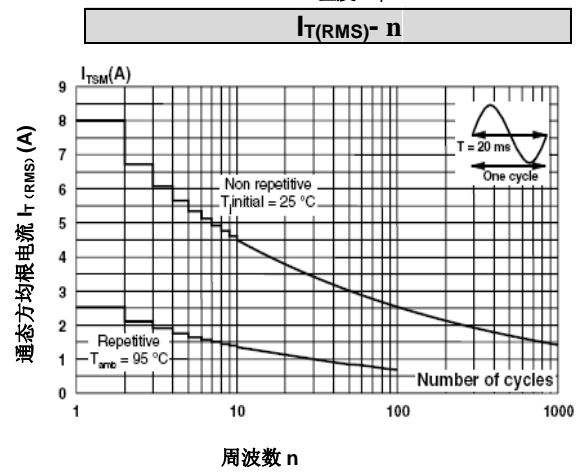
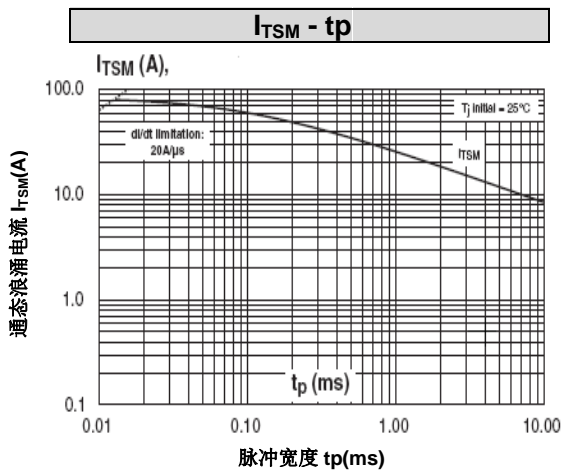
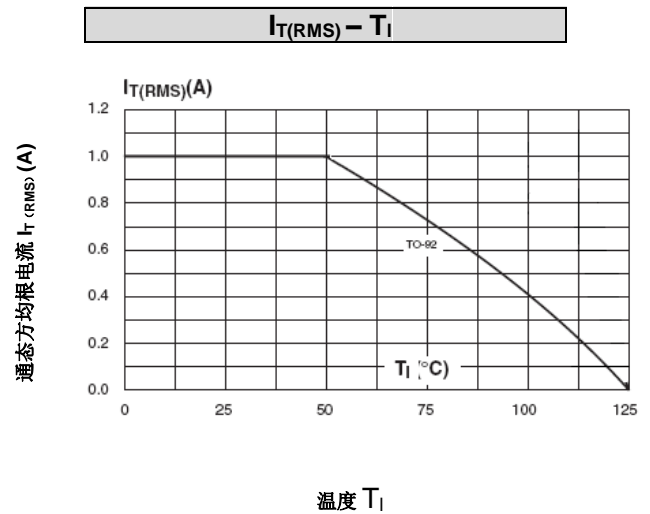
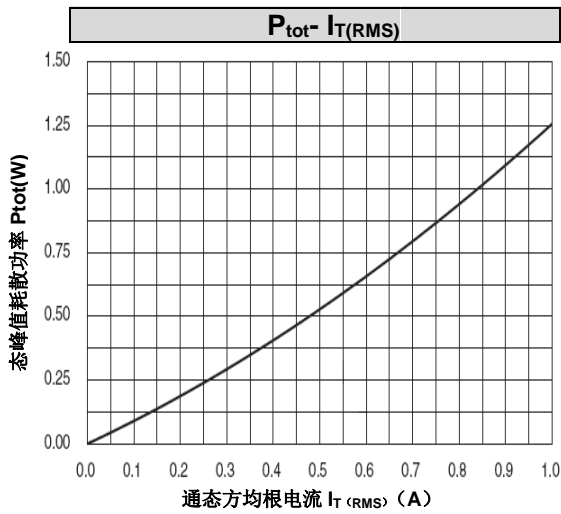
## 热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到引线的热阻 Thermal resistance junction to lead	R <sub>th(j-l)</sub>	full cycle (TO-92)	-	-	60	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

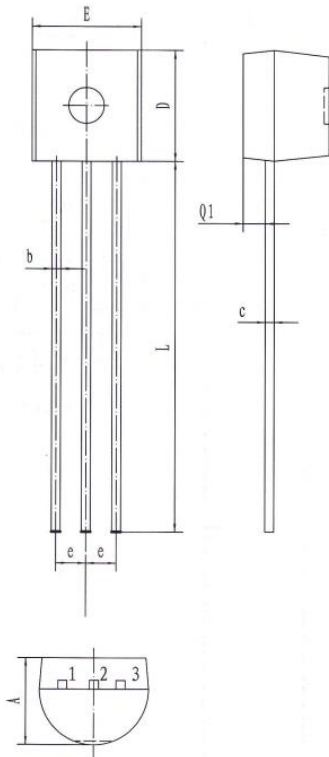




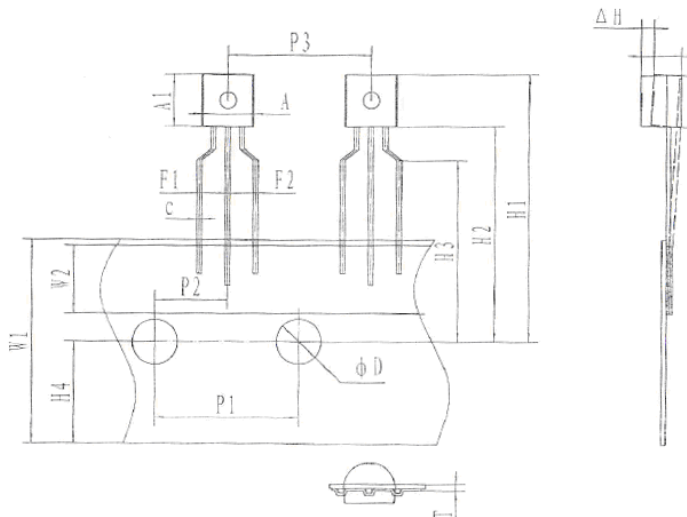
外形尺寸 PACKAGE MECHANICAL DATA

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	4.50-4.70
A1	4.50-4.70
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
△H	0.00-1.00





### 注意事项

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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