



Z01 SERIES

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	1.0A
V_{DRM}	800V
I_{GT}	3mA/5mA/10mA

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

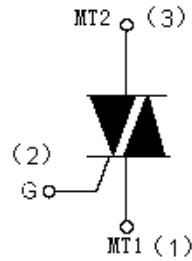
APPLICATIONS

- AC switching
- Phase control

FEATURES

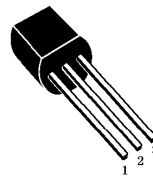
- Glass-passivated mesa chip for reliability and uniform
- Low on-state voltage and High I_{TSM}
- RoHS products

封装 Package

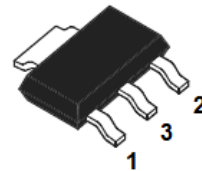


序号 Pin	引线名称 Description
1	主电极 1 MT1
2	门极 G
3	主电极 2 MT2

T0-92



SOT-223





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	Z0103N T	TO-92
Z0103NT-T-E	Z0103NT-T-ER	Z0103NT-T-C	Z0103NT-T-CR	Z0105N T	TO-92
Z0105NT-T-E	Z0105NT-T-ER	Z0105NT-T-C	Z0105NT-T-CR	Z0110N T	TO-92
Z0110NT-T-E	Z0110NT-T-ER	Z0110NT-T-C	Z0110NT-T-CR	印 记 Marking	封 装 Package
有卤-编带	无卤-编带			Z0103N N	SOT-223
Halogen-Reel	Halogen-Free-Reel			Z0105N N	SOT-223
Z0103NN-NC-A	Z0103NN-NC-AR	N/A	N/A	Z0110N N	SOT-223
Z0105NN-NC-A	Z0105NN-NC-AR	N/A	N/A		
Z0110NN-NC-A	Z0110NN-NC-AR	N/A	N/A		

绝对最大额定值 ABSOLUTE RATINGS (T_c=25℃)

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 _{DRM}		±800	V
通态方均根电流 On-state RMS current	I _{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 _{TSM}	full sine wave ,t=20ms	8	A
		full sine wave ,t=16.7ms	8.5	A
	I ² t	t=10ms	0.36	A ² 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	A/μs
峰值门极电流 Peak gate current	I _{GM}		1	A
平均门极功率 Average gate power	P _{G(AV)}		0.1	W
存储温度 Storage temperature	T _{stg}		-40~150	℃
操作结温 Operation junction temperature	T _{VJ}		125	℃



电特性 ELECTRICAL CHARACTERISTIC (T_C=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 _{DRM}	V _{DM} =V _{DRM} , T _j =125°C, gate open	-	-	0.5	mA		
峰值通态电压 Peak on-state voltage	V _{TM}	I _{TM} =2A	-	-	1.7	V		
门极触发电压 Gate trigger voltage	V _{GT}	V _{DM} =12V, R _L =100Ω	-	-	1.5	V		
项 目 Parameter	符 号 Symbol	测 试 条 件 Condition	Z0103NT 、 Z0103NN	Z0105NT 、 Z0105NN	Z0110NT 、 Z0110NN	单位 Unit		
门极触发电流 Gate trigger current	I _{GT}	V _{DM} =12V, R _L =100Ω	MT1(-),MT2(+),G(+)	Max.	3	5	10	mA
			MT1(-),MT2(+),G(-)	Max.	3	5	10	mA
			MT1(+),MT2(-),G(-)	Max.	3	5	10	mA
			MT1(+),MT2(-),G(+)	Max.	6	10	25	mA
维持电流 Holding current	I _H	V _{DM} =12V, I _{GT} =0.1A	Max.	7	10	12	mA	
擎住电流 Latching current	I _L	V _{DM} =12V, I _{GT} =0.1A	Max.	15	20	25	mA	
断态临界电压上升率 Rise of off- state voltage	dV/dt	V _{DM} =67% V _{DRM(MAX)} , T _j =125°C, gate open	Min.	10	20	50	V/μs	

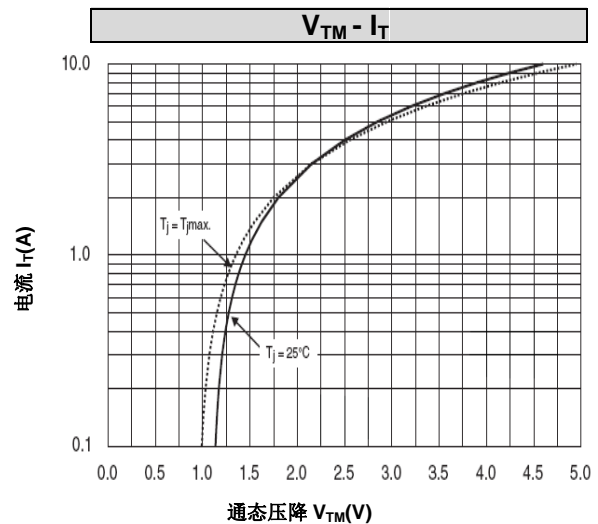
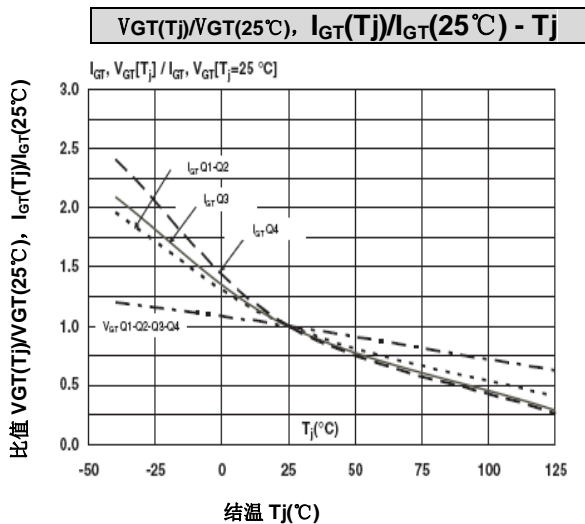
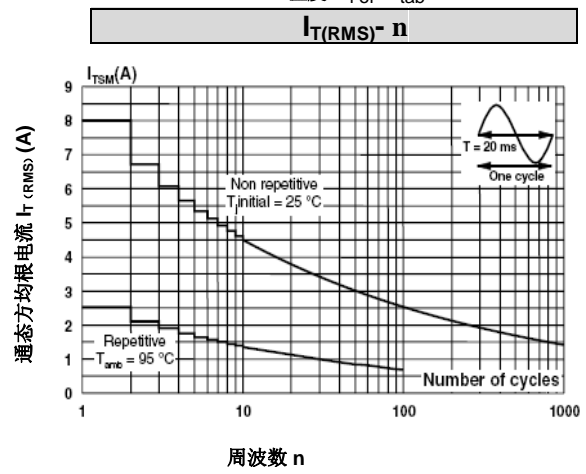
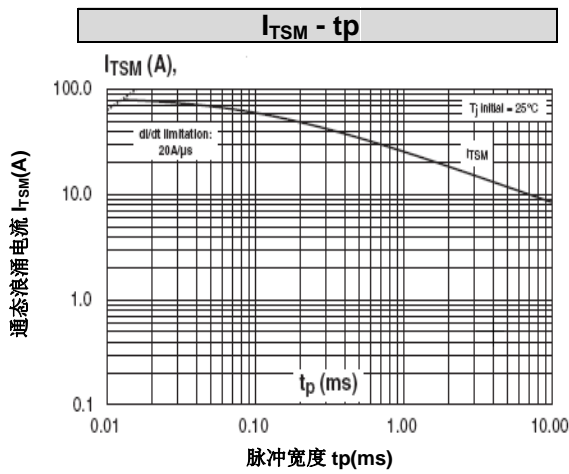
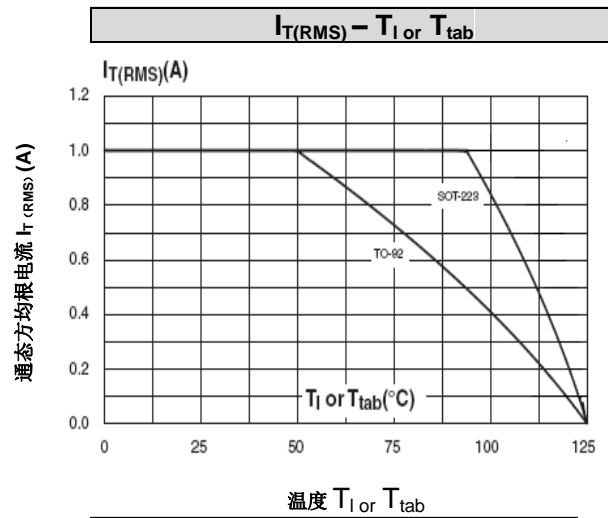
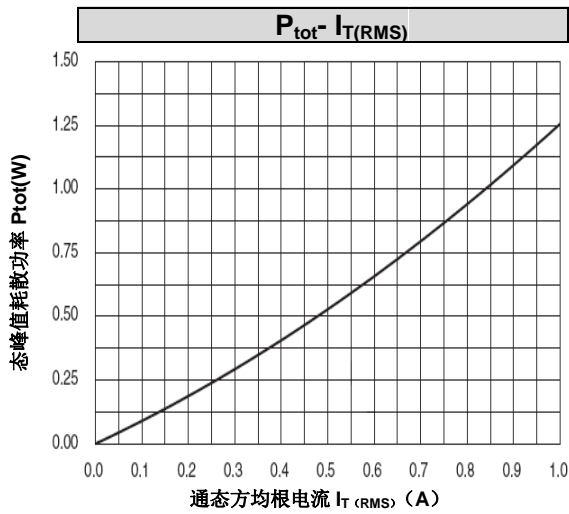
热特性 THERMAL CHARACTERISTIC

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 tab	R _{th(j-t)}	full cycle (SOT-223)	-	-	25	°C/W
结到引线的热阻 Thermal resistance junction to lead	R _{th(j-l)}	full cycle (TO-92)	-	-	60	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

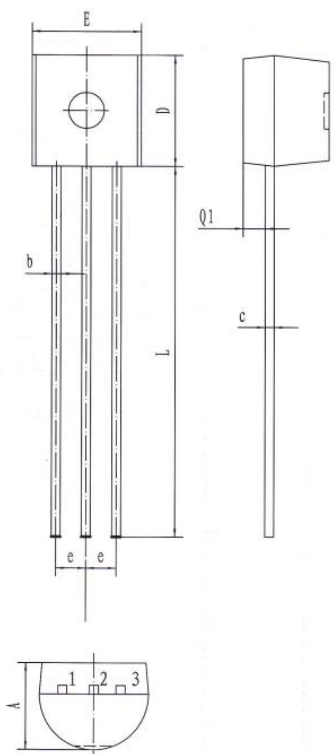




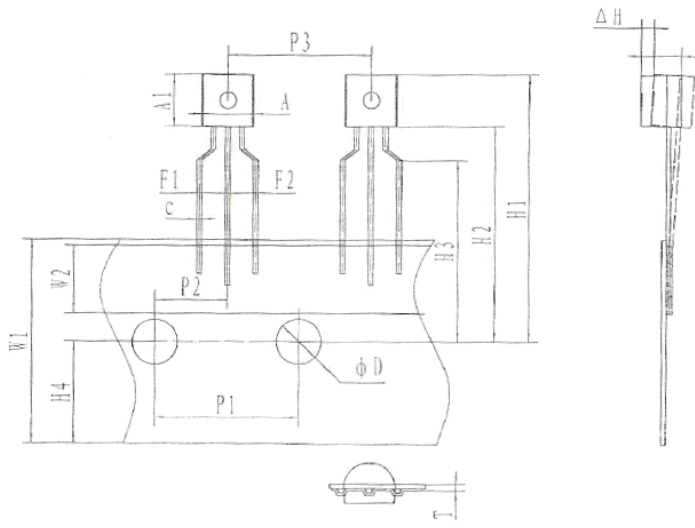
外形尺寸 PACKAGE MECHANICAL DATA

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

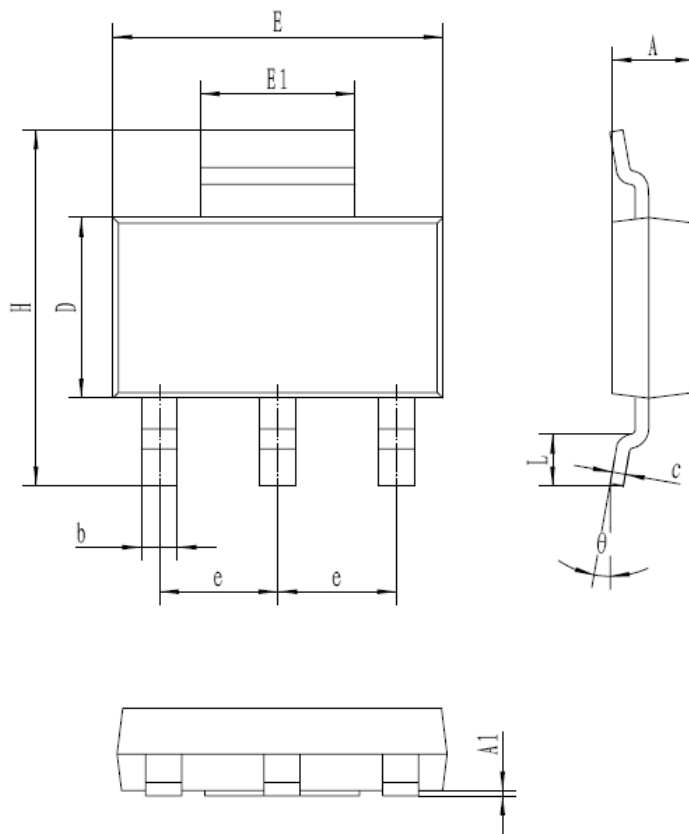




外形尺寸 PACKAGE MECHANICAL DATA

SOT-223

单位 Unit : mm



symbol 符号	MIN	MAX
A	1.50	1.70
A1	0.02	0.10
b	0.60	0.80
c	0.24	0.31
D	3.30	3.70
E	6.30	6.50
E1	2.90	3.10
e	2.30 TYPE	
H	6.75	7.05
L	0.8	1.20
θ	0°	10°





注意事项

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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

NOTE

1. Jilin Sino-microelectronics co., Ltd sales its product either through direct sales or sales agent, thus, for customers, when ordering, please check with our company.
2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
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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