



Z0105NNL

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

APPLICATIONS

AC switching
Phase control

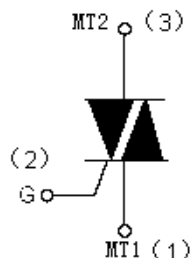
产品特性

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

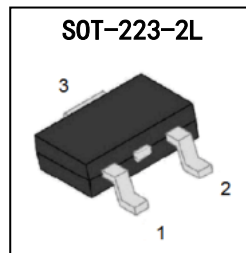
Glass-passivated mesa chip for reliability and uniform
Low on-state voltage and High I_{TSM}
RoHS products

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

SOT-223-2L



订货信息 ORDER MESSAGES

订 货 型 号 Order codes		印 记 Marking	封 装 Package
有卤-编带	无卤-编带		
Halogen-Reel	Halogen-Free-Reel		
Z0105NNL-NL-A	Z0105NNL-NL-AR	Z0105NNL	SOT-223-2L

Z0105NNL 是玻璃钝化芯片结构的四象限双向晶闸管，具有较高的使用可靠性。器件封装形式有 SOT-223-2L。

Z0105NNL are Glass passivated four quadrant triacs. Available packages are SOT-223-2L.



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	$^{\circ}\text{C/W}$

绝对最大额定值 ABSOLUTE RATINGS (TC=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_{DRM}		± 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_{TSM}	full sine wave ,t=20ms	15	A
I^2t for using	I^2t	t=10ms	1.12	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after triggering	di/dt	MT1(-),MT2(+),G(+); MT1(-),MT2(+),G(-); MT1(+),MT2(-),G(-); MT1(+),MT2(-),G(+)	50 50 50 20	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	I_{GM}		1	A
峰值门极功率 Peak gate power	P_{GM}		2.0	W
峰值门极电压 Peak gate voltage	V_{GM}		6.0	V
平均门极功率 Average gate power	$P_{\text{G(AV)}}$		0.1	W
存储温度 Storage temperature	T_{stg}		-40~150	$^{\circ}\text{C}$
操作结温 Operation junction temperature	T_{vj}		-40~125	$^{\circ}\text{C}$





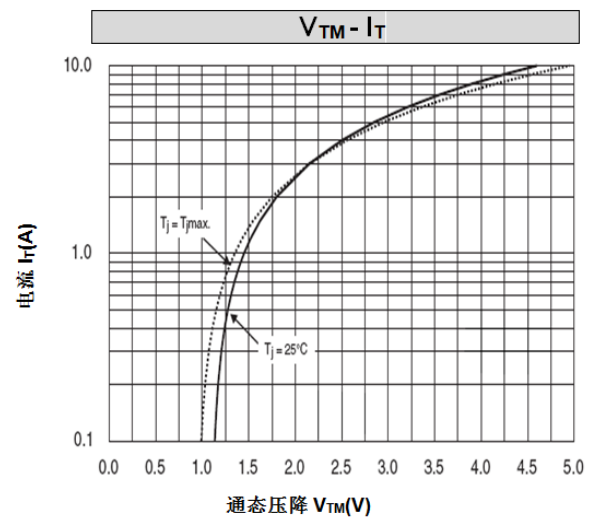
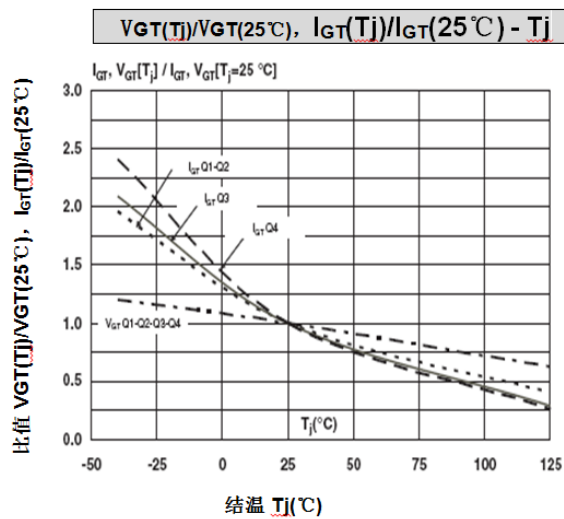
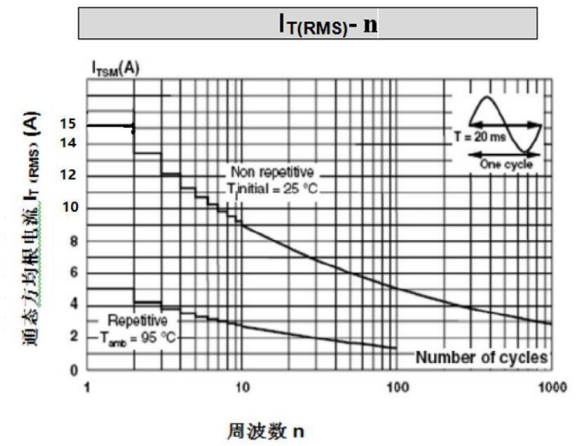
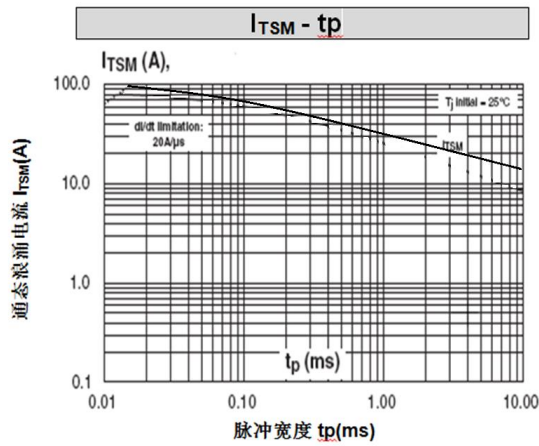
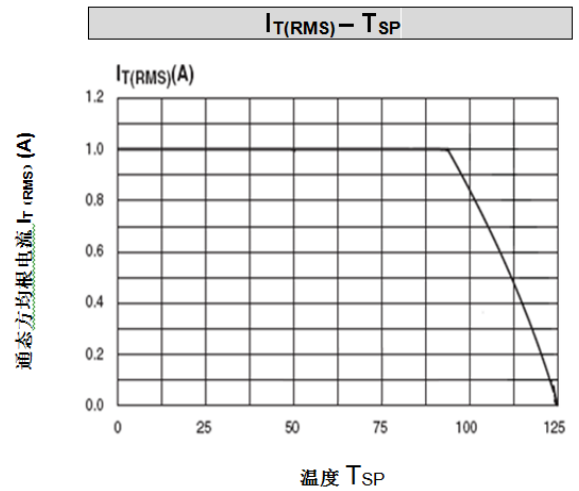
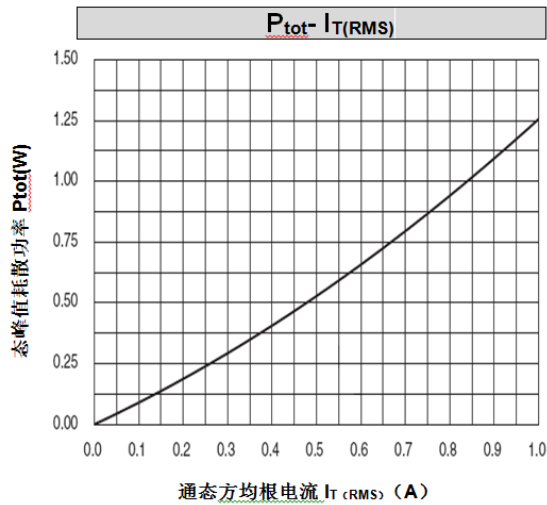
电特性 ELECTRICAL CHARACTERISTIC (TC=25°C)

项 目 Parameter	符 号 Symbol	测 试 条 件 Condition		最小 Min	典型 Typ	最大 Max	单位 Unit
门极触发电流 Gate trigger current	I_{GT}	$V_{DM}=6V$, $R_L=6\Omega$	MT1(-),MT2(+),G(+)	-	-	5	mA
			MT1(-),MT2(+),G(-)	-	-	5	mA
			MT1(+),MT2(-),G(-)	-	-	5	mA
			MT1(+),MT2(-),G(+)	-	-	10	mA
维持电流 Holding current	I_H	$V_{DM}=12V$, $I_{GT}=0.1A$		-	-	10	mA
擎住电流 Latching current	I_L	$V_{DM}=12V$, $I_{GT}=0.1A$, MT2(+),G(+)		-	-	15	mA
		$V_{DM}=12V$, $I_{GT}=0.1A$, MT2(+),G(-)		-	-	15	mA
		$V_{DM}=12V$, $I_{GT}=0.1A$, MT2(-),G(-)		-	-	15	mA
		$V_{DM}=12V$, $I_{GT}=0.1A$, MT2(-),G(+)		-	-	25	mA
断态临界电压上升率 Rise of off-state voltage	dV/dt	$V_{DM}=402V$, $T_j=110^\circ C$, gate open		50	-	-	V/ μs
门极触发电压 Gate trigger voltage	V_{GT}	$V_{DM}=6V$, $R_L=6\Omega$		-	-	1.3	V
峰值通态电压 Peak on-state voltage	V_{TM}	$I_{TM}=1.5A$		-	1.3	1.6	V
峰值重复断态电流 Off-state leakage Current	ID	$V_D=600V$, $T_j=125^\circ C$		-	-	500	μA





特征曲线 ELECTRICAL CHARACTERISTICS (curves)



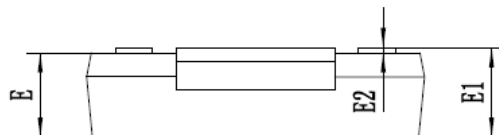
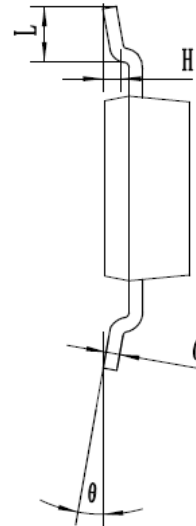
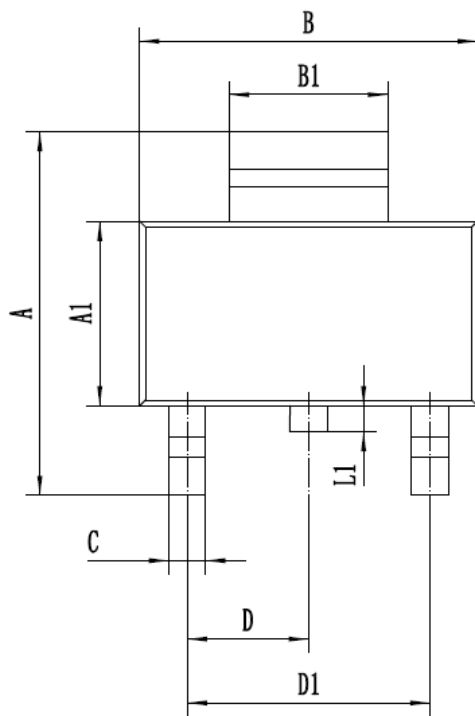


Z0105NNL

外形尺寸 PACKAGE MECHANICAL DATA

SOT-223-2L

单位 Unit : mm



SYMBOL	mm		
	MIN	NOM	MAX
A	6.65	6.95	7.25
A1	3.3	3.5	3.7
B	6.2	6.4	6.6
B1	2.8	3.0	3.2
C	0.64	0.74	0.84
D	2.20	2.30	2.40
D1	4.4	4.6	4.8
E	1.4	1.6	1.8
E1	1.40	1.66	1.95
E2	0		0.15
G	0.23	0.30	0.37
H	0.18	0.25	0.32
L	0.7	0.95	1.2
L1			0.8
θ			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。

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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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