



Z0103NN

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

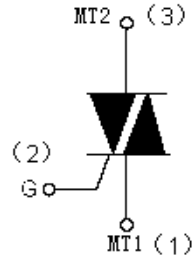
产品特性

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

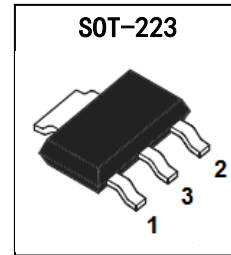
Glass-passivated mesa chip for reliability and uniform
Low on-state voltage and High I_{TSM}
RoHS products

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

SOT-223



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	Z0103NN	SOT-223
Z0103NN-NC-A	Z0103NN-NC-AR		



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_{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	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/ μ s
峰值门极电流 Peak gate current	I_{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_{stg}		-40~150	$^\circ\text{C}$
操作结温 Operation junction temperature	T_{VJ}		125	$^\circ\text{C}$



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
门极触发电流 Gate trigger current	I _{GT}	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 _H	V _{DM} =12V, I _{GT} =0.1A	-	-	7	mA
擎住电流 Latching current	I _L	V _{DM} =12V, I _{GT} =0.1A	-	-	15	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	-	-	10	V/μs

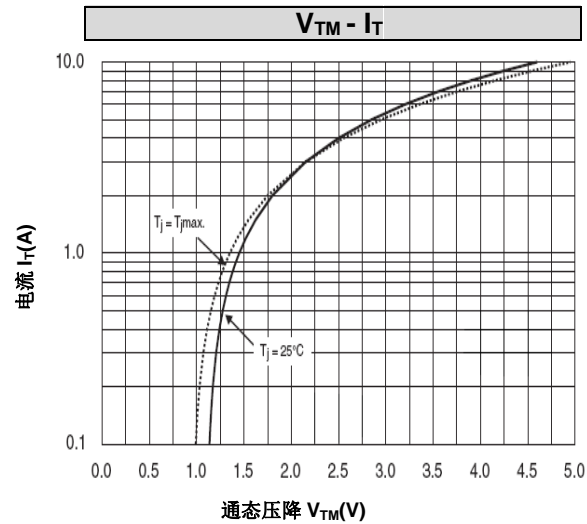
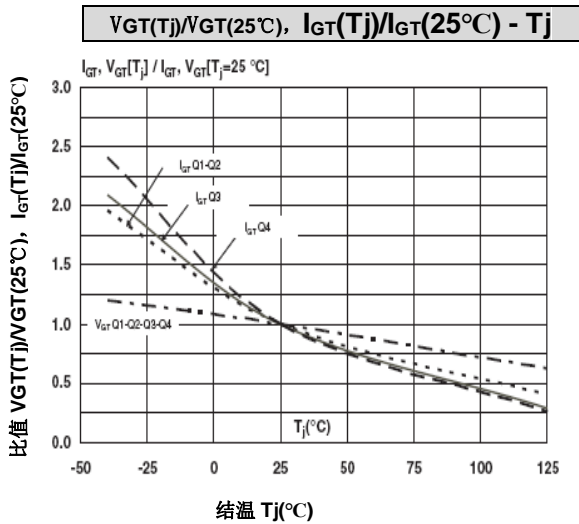
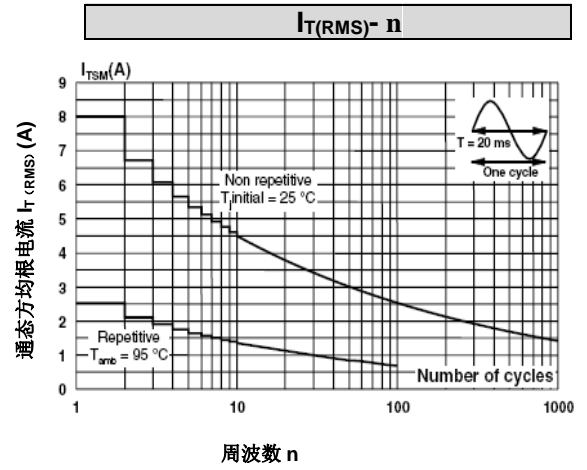
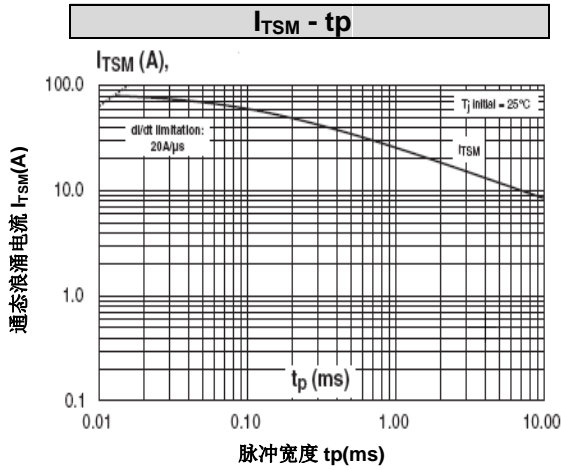
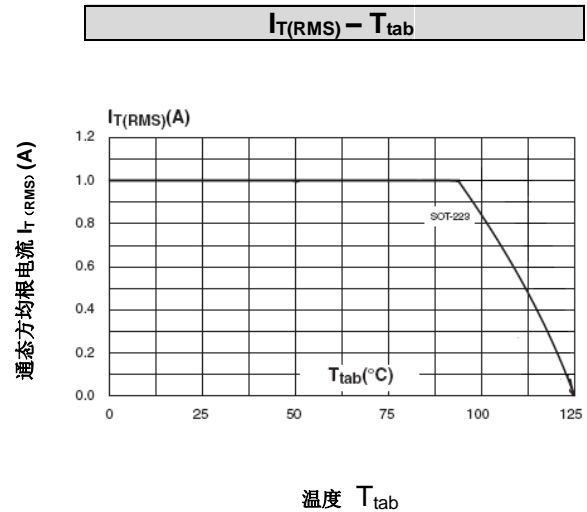
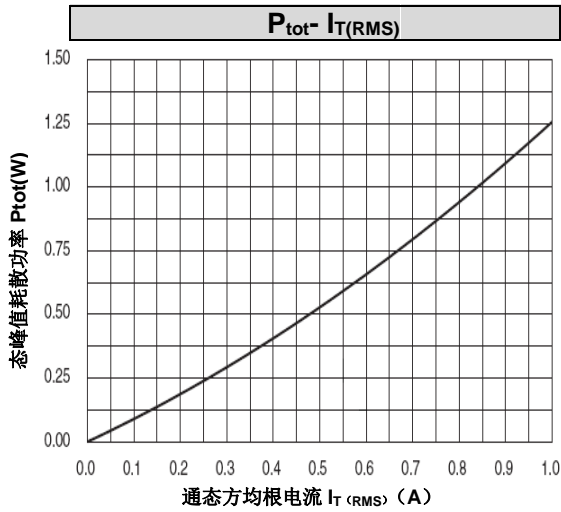
热特性 THERMAL CHARACTERISTIC

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 tab	R _{th(j-t)}	full cycle (SOT-223)	-	-	25	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

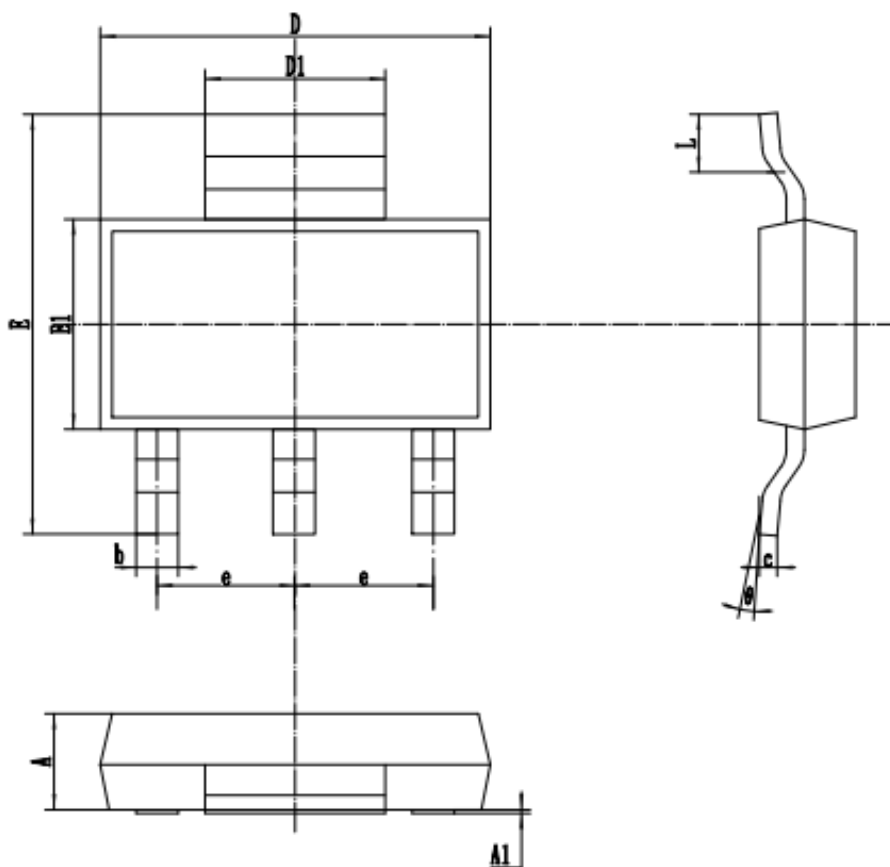




外形尺寸 PACKAGE MECHANICAL DATA

SOT-223

单位 Unit : mm



SYMBOL	mm	
	MIN	MAX
A	1.50	1.80
A1	0.01	0.12
b	0.60	0.85
c	0.15	0.40
D	6.25	6.75
D1	2.80	3.20
E	6.75	7.25
E1	3.30	3.70
e	2.30 BASIC	
L	0.80	1.20
θ	-	10°





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