

3FT1N2

主要参数 MAIN CHARACTERISTICS

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

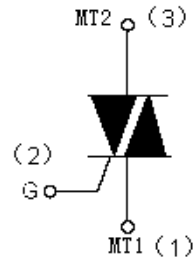
APPLICATIONS

- AC switching
- Phase control

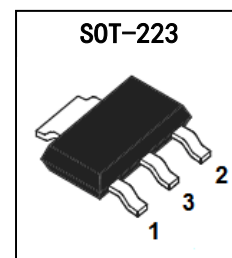
FEATURES

- Glass-passivated mesa chip for high 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	无卤-编带	3FT1N2	SOT-223
Halogen-Reel	Halogen-Free- Reel		
3FT1N2-NC-A	3FT1N2-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 , $t=20\text{ms}$	10	A
		full sine wave , $t=16.7\text{ms}$	11	A
	I^2t	$t=10\text{ms}$	0.5	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(-)	50	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	I_{GM}		2	A
平均门极功率 Average gate power	$P_{\text{G(AV)}}$		0.5	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	-	-	1.5	V	
门极触发电流 Gate trigger current	I _{GT}	V _{DM} =12V, R _L =100Ω	-	-	10	MT1(-),MT2(+),G(+)	mA
						MT1(-),MT2(+),G(-)	mA
						MT1(+),MT2(-),G(-)	mA
		MT1(+),MT2(-),G(+)	25	mA			
门极触发电压 Gate trigger voltage	V _{GT}	V _{DM} =12V,R _L =100Ω	-	-	1.5	V	
维持电流 Holding current	I _H	V _{DM} =12V, I _{GT} =0.1A	-	-	15	mA	
擎住电流 Latching current	I _L	V _{DM} =12V, I _{GT} =0.1A	-	-	20	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	-	30	-	V/μs	

热特性 THERMAL CHARACTERISTIC

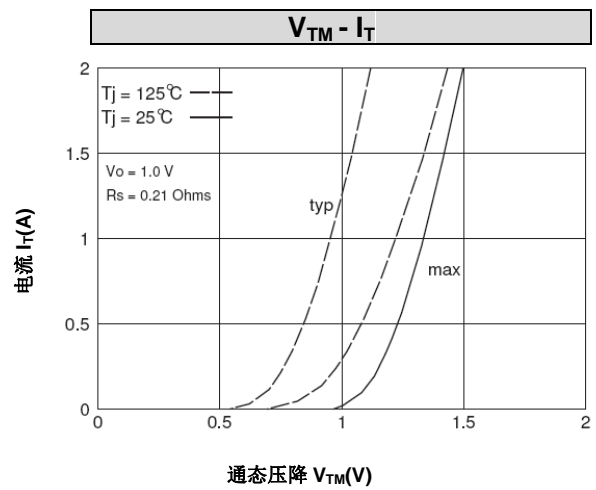
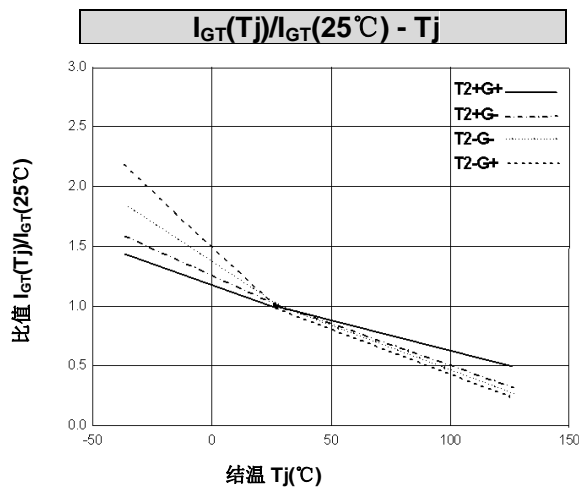
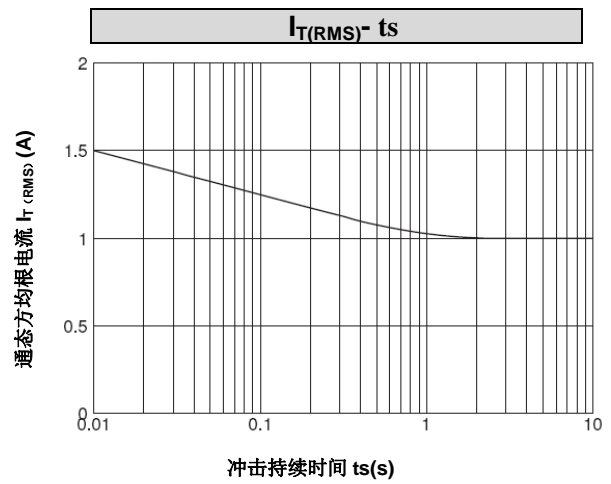
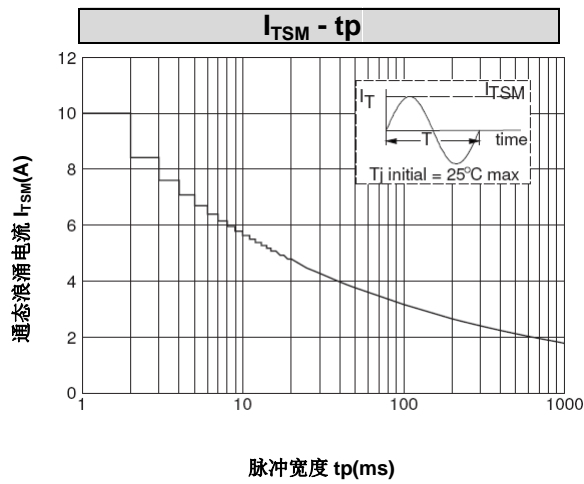
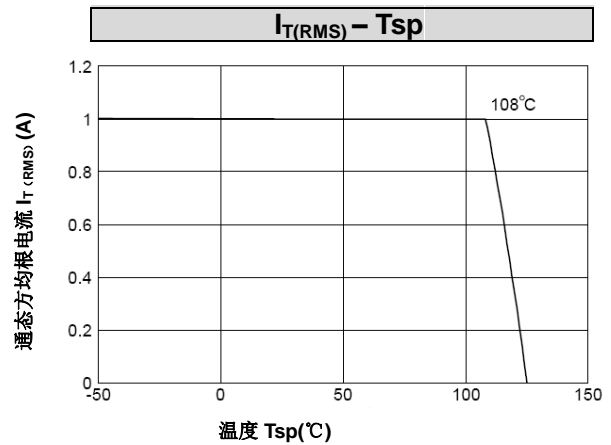
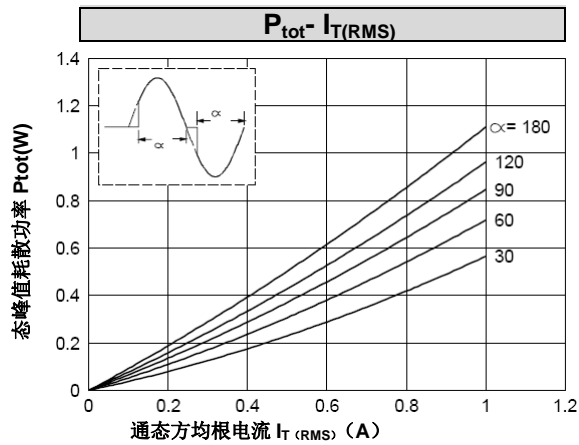
项 目 Parameter	符 号 Symbol	条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到引线的热阻 Thermal resistance junction to solder point	R _{th(j-sp)}	full cycle (SOT-223)	-	-	15	°C/W

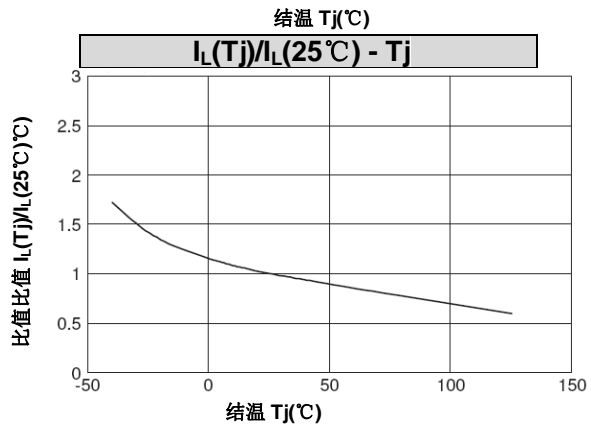
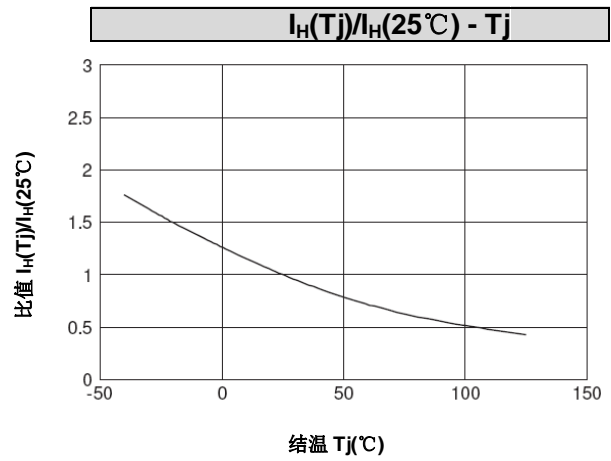
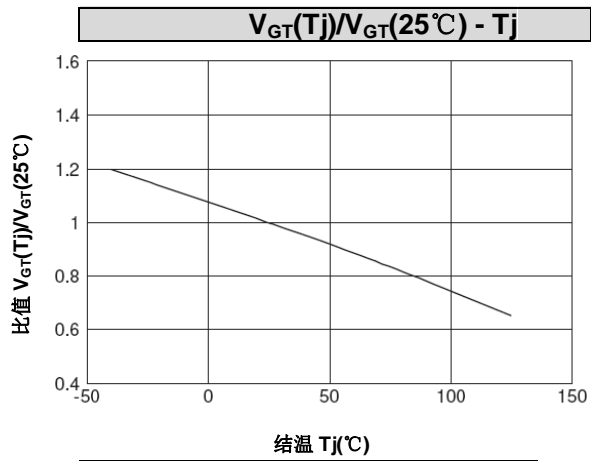




特征曲线 ELECTRICAL CHARACTERISTICS (curves)

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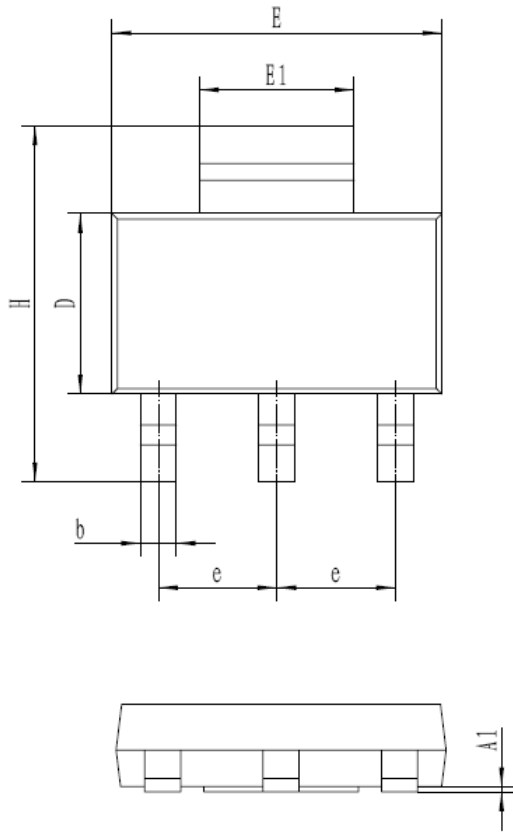




外形尺寸 PACKAGE MECHANICAL DATA

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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4. 本说明书如有版本变更不另外告知

NOTE

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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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