



CS1100N5A

主要参数 MAIN CHARACTERISTICS

$I_{T(RMS)}$	1A
V_{DRM}/V_{RRM}	900V
I_{GT}	30-100 μ A

用途

半交流开关
相位控制

APPLICATIONS

Half 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

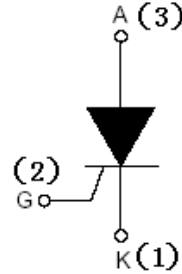
FEATURES

Glass-passivated mesa chip for high reliability and uniform

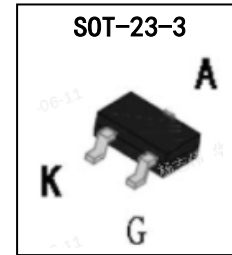
Low on-state voltage and High I_{TSM}

RoHS products

封装 Package



序号 Pin	引线名称 Description
1	阴极: K
2	门级: G
3	阳极: A



订货信息 ORDER MESSAGES

有卤-编带	有卤-袋装	印 记 Marking	封 装 Package
Halogen-Reel	Halogen-Bag		
N/A	CS1100N5A--T-C	1100N5A	SOT-23-3
CS1100N5A -T-A	N/A	1100N5A	SOT-23-3

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
断态重复峰值电压 Repetitive peak off-state voltage	V_{DRM}		900	V
反向重复峰值电压 Repetitive peak reverse voltage	V_{RRM}		900	V
Non -Repetitive peak off-state voltage	V_{DSM}		950	V
Non -Repetitive peak reverse voltage	V_{RSM}		950	V
通态方均根电流 On-state RMS current	$I_{\text{T (RMS)}}$		1	A
非重复浪涌峰值通态电流 Non- repetitive surge peak on-state current	I_{TSM}	half sine cycle (t=20ms), $T_j=25^\circ\text{C}$	8	A
熔断 I^2t I^2t for fusing	I^2t	half sine wave, t=10ms	0.32	A^2s
通态电流临界上升率 Repetitive rate of rise of on-state current after riggering	di/dt	$I_{\text{TM}}=2.0\text{A}$, $I_{\text{G}}=0.02\text{A}$, $dI_{\text{G}}/dt=1.0\text{A}/\mu\text{s}$	50	$\text{A}/\mu\text{s}$
峰值门极电流 Peak gate current	I_{GM}	$t_p=20\mu\text{s}$, $T_j=110^\circ\text{C}$	0.3	A
平均门极功率 Average gate power	$P_{\text{G(AV)}}$	$t_p=20\mu\text{s}$, $T_j=110^\circ\text{C}$	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}		-40~110	$^\circ\text{C}$



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
断态峰值重复电流 Peak Repetitive Blocking Current	I _{DRM}	V _D =V _{DRM} , T _j =25°C, R _{GK} =1KΩ	-	-	5	uA
反向峰值重复电流 Peak Repetitive Reverse Current	I _{RRM}	V _R =V _{RRM} , T _j =25°C, R _{GK} =1KΩ	-	-	5	uA
峰值通态电压 Peak on-state voltage	V _{TM}	I _{TM} =2A, t _p =380us, T _j =25°C	-	-	1.7	V
门极触发电流 Gate trigger current	I _{GT}	V _{AK} =12V, R _L =33Ω	-	-	100	μA
门极触发电压 Gate trigger voltage	V _{GT}	V _{AK} =12V, R _L =33Ω	-	0.6	0.8	V
	V _{GD}	V _D =V _{DRM} , T _j =110°C	0.2			V
维持电流 Holding current	I _H	V _{AK} =12V, I _T =0.1A	-	-	3	mA
擎住电流 Latch current	I _L	V _{AK} =12V, I _T =0.1A	-	-	5	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	V _{DM} =2/3V _{DRM} , T _j =110°C, R _{GK} =1KΩ	50	100		V/μs

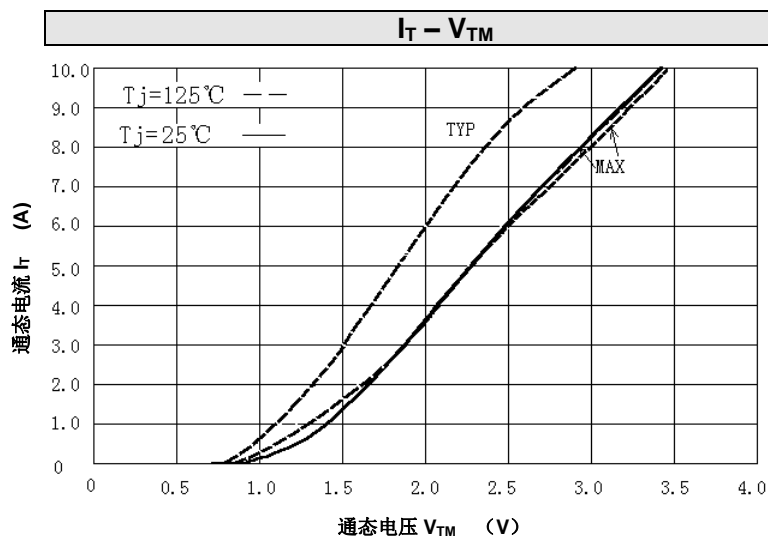
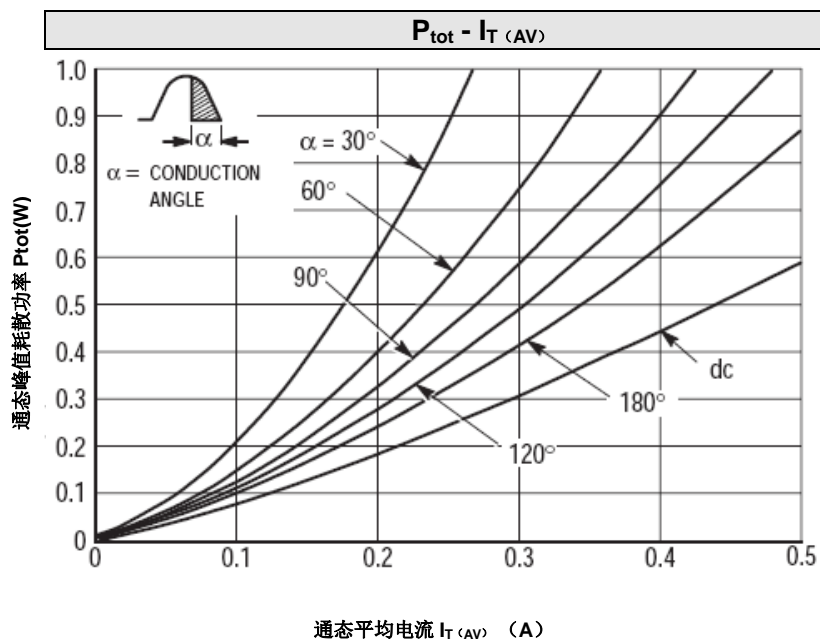
热特性 THERMAL CHARACTERISTIC

项 目 Parameter	符 号 Symbol	条 件 Condition	最小 Min	典型 Typ	最大 Max	单位 Unit
结到环境的热阻 Thermal resistance junction to Ambient	R _{th(j-A)}	full cycle (SOT-23-3)	-	-	100	°C/W





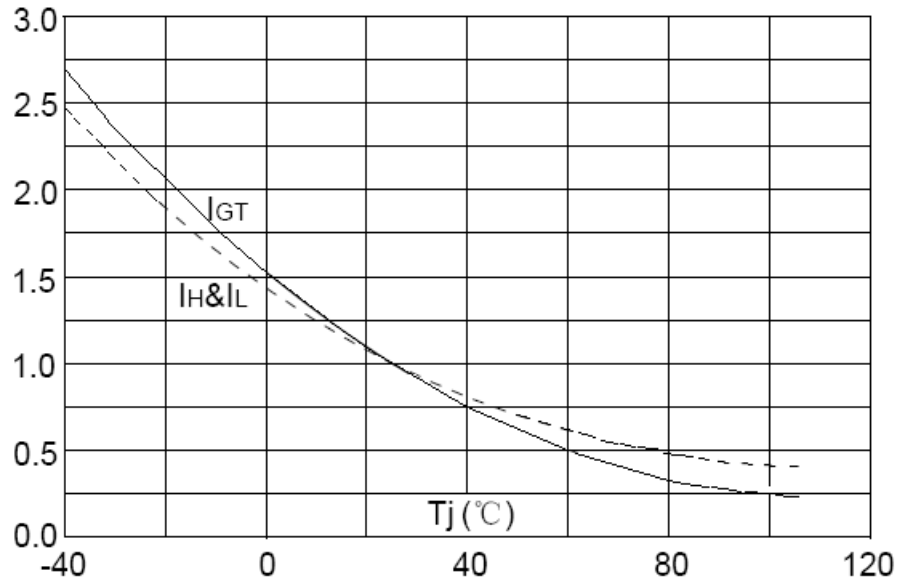
特征曲线 ELECTRICAL CHARACTERISTICS (curves)





$I_{GT}, I_H, I_L(T_j) / I_{GT}, I_H, I_L(T_j=25^\circ\text{C})$

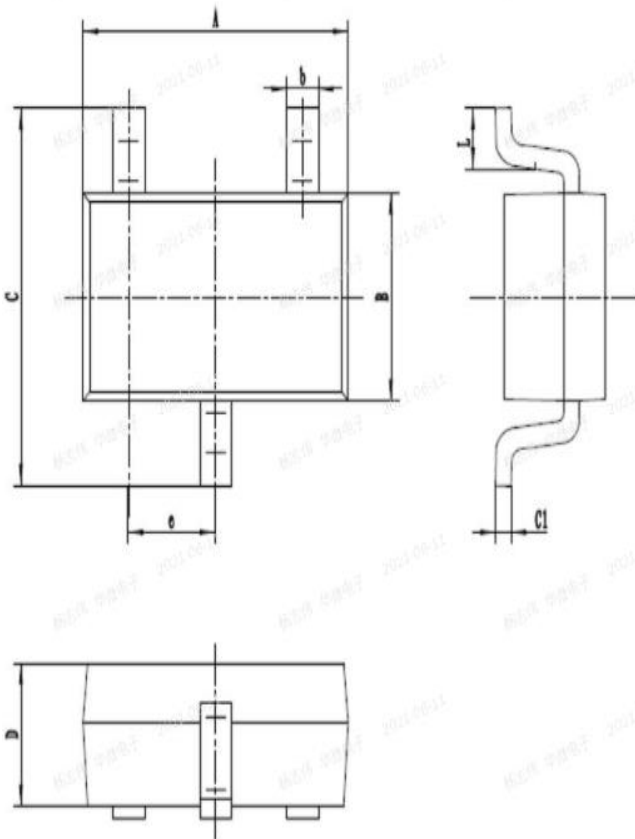
Relative variations of gate trigger current, holding current and latching current versus junction temperature.





外形尺寸 PACKAGE MECHANICAL DATA
SOT-23-3

单位 Unit: mm



SYMBOL	MM	
	MIN	MAX
A	2.82	3.02
B	1.50	1.70
C	2.65	2.95
D	1.00	1.20
L	0.30	0.60
b	0.29	0.51
e	0.95(BSC)	
C1	0.1	0.2



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