



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

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

Half AC switching

Phase control

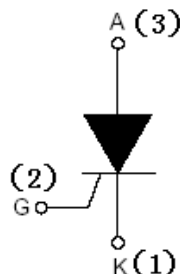
FEATURES

Glass-passivated mesa chip for high reliability and uniform

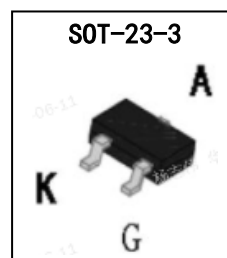
Low on-state voltage and High I_{TSM}

RoHS products

封装 Package



序号 Pin	引线名称 Description
1	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	CS1100N5A	SOT-23-3
CS1100N5A -T-A	N/A	CS1100N5A	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 ($t=20\text{ms}$), $T_j=25^{\circ}\text{C}$	8	A
熔断 I^2t I^2t for fusing	I^2t	half sine wave, $t=10\text{ms}$	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 ($T_c=25^{\circ}\text{C}$)

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}	$V_D=V_{\text{DRM}}, T_j=25^{\circ}\text{C}, R_{\text{GK}}=1\text{K}\Omega$	-	-	5	μA
反向峰值重复电流 Peak Repetitive Reverse Current	I_{RRM}	$V_R=V_{\text{RRM}}, T_j=25^{\circ}\text{C}, R_{\text{GK}}=1\text{K}\Omega$	-	-	5	μA
峰值通态电压 Peak on-state voltage	V_{TM}	$I_{\text{TM}}=2\text{A}, t_p=380\mu\text{s}, T_j=25^{\circ}\text{C}$	-	—	1.7	V
门极触发电流 Gate trigger current	I_{GT}	$V_{\text{AK}}=12\text{V}, R_L=33\Omega$		-	100	μA
门极触发电压 Gate trigger voltage	V_{GT}	$V_{\text{AK}}=12\text{V}, R_L=33\Omega$	-	0.6	0.8	V
	VGD	$V_D=V_{\text{DRM}}, T_j=110^{\circ}\text{C}$	0.2			V
维持电流 Holding current	I_{H}	$V_{\text{AK}}=12\text{V}, I_T=0.1\text{A}$	-	-	3	mA
擎住电流 Latch current	I_{L}	$V_{\text{AK}}=12\text{V}, I_T=0.1\text{A}$	-	-	5	mA
断态临界电压上升率 Rise of off- state voltage	dV/dt	$V_{\text{DM}}=2/3V_{\text{DRM}}, T_j=110^{\circ}\text{C}, R_{\text{GK}}=1\text{K}\Omega$	50	100		V/ μs

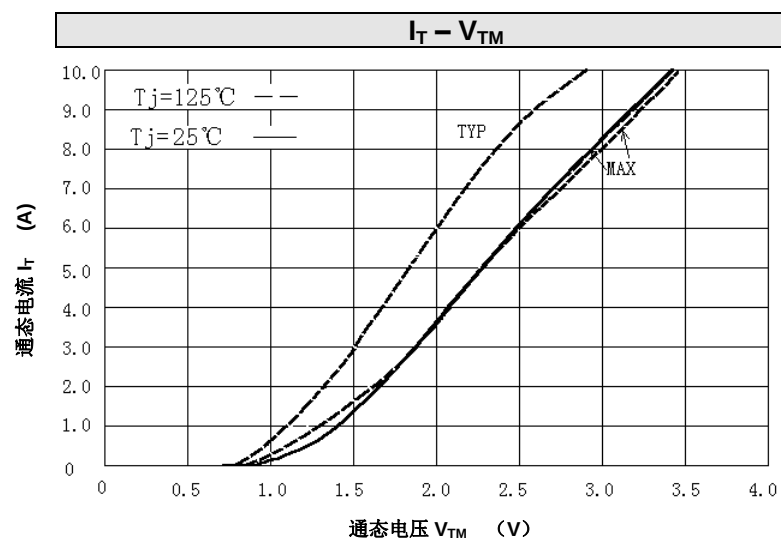
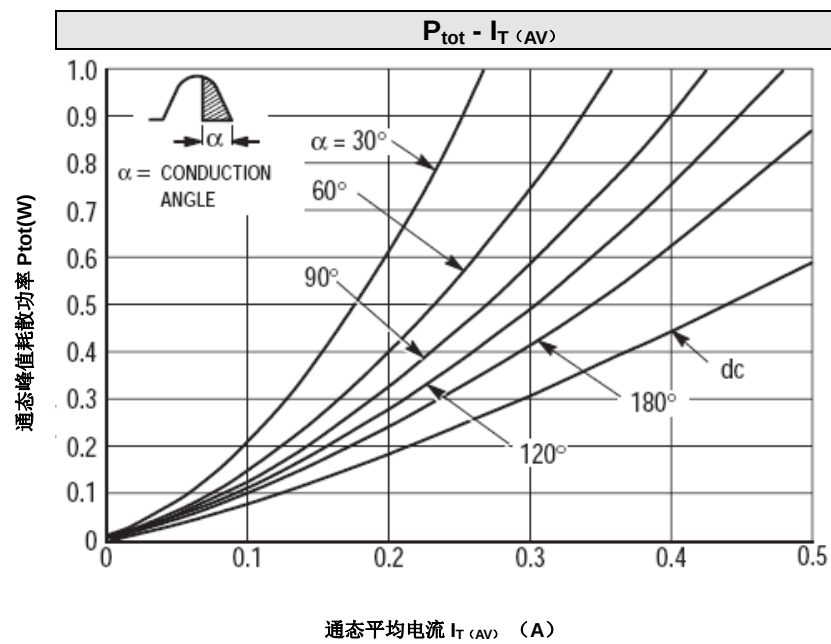
热特性 THERMAL CHARACTERISTIC

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	$R_{\text{th(j-A)}}$	full cycle (SOT-23-3)	-	-	100	$^{\circ}\text{C/W}$



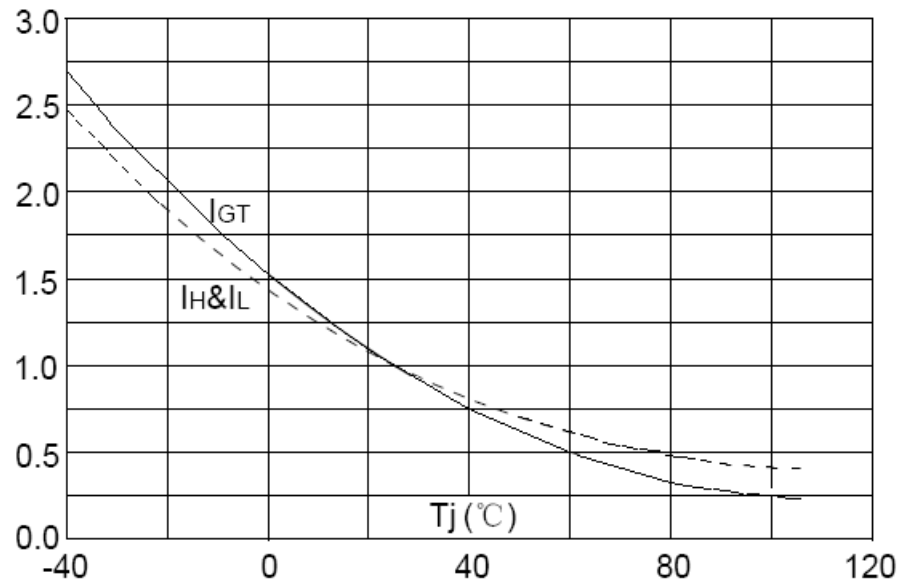


特征曲线 ELECTRICAL CHARACTERISTICS (curves)



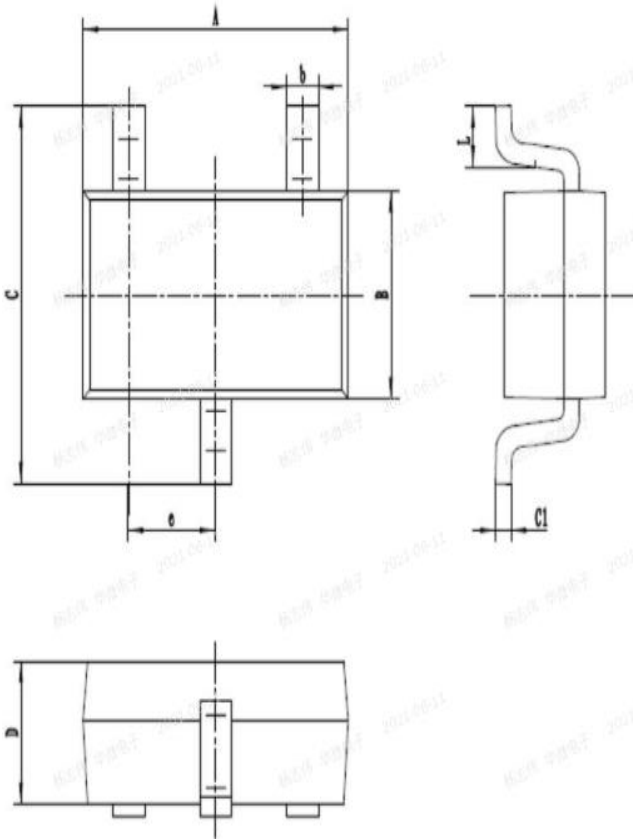
$I_{GT}, I_H, I_L(T_j) / I_{GT}, I_H, I_L(T_j=25^{\circ}\text{C})$

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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