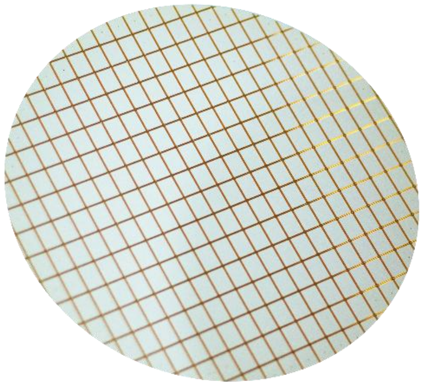
PRELIMINARY DATASHEET 规格书

SID0340C120d23

d23 QLLC Diode, 9.19mm x 12.47mm

二极管芯片 d23，9.19mm x 12.47mm



V_{RRM} = 1200 V

I_F = 340 A

- *d23* quasi local lifetime control diode design
  d23 先进的发射效率二极管设计
- neutral temperature coefficient
  中性温度系数
- easy paralleling
  易并联

Maximum ratings[1] 最大额定值

PARAMETER 参数	SYMBOL 符号	CONDITIONS 条件	MIN 最小值	MAX 最大值	UNIT 单位
Repetitive peak reverse voltage 重复峰值反向电压	V_{RRM}	T_{vj} >/= 25 °C		1200	V
Continuous forward current 正向直流电流	I_F	T_{vj} < 175 °C		300	A
Maximum repetitive forward current 最大重复正向电流	I_{FRM}	t_p limited by $T_{vj\,max}$ 脉冲宽度依据 $T_{vj\,max}$ 设定		600	A
Junction temperature 结温	T_{vj}		-40	175	°C
Junction operating temperature 运行结温	$T_{vj(op)}$		-40	175	°C

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[1] Maximum rated values indicate limits beyond which damage to the device may occur per IEC 60747

[1] 根据标准 IEC 60747 要求，最大额定值表示超过该限值可能会对器件造成损坏。

Diode[2]

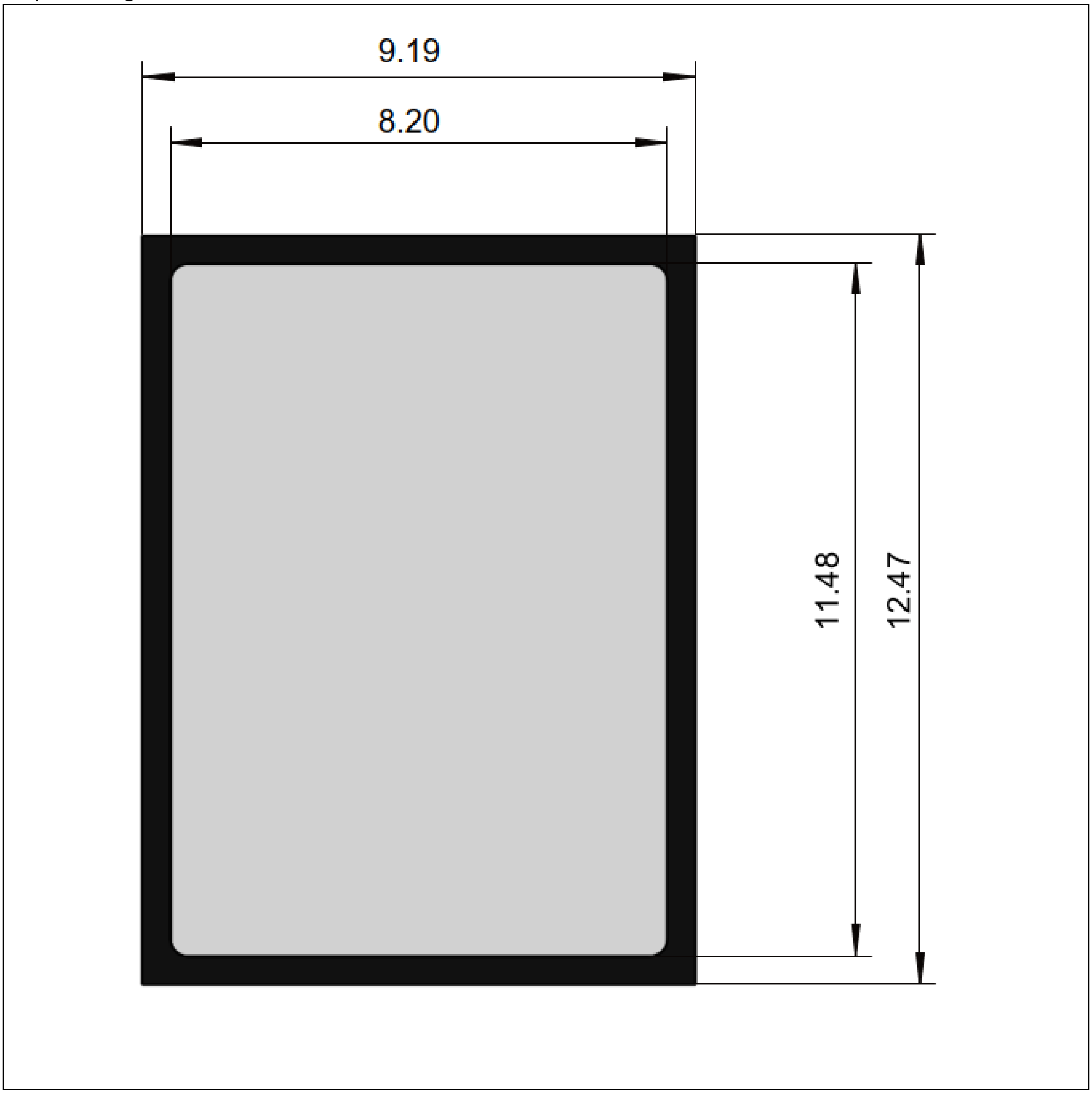
PARAMETER 参数	SYMBOL 符号	CONDITIONS 条件		MIN 最小值	TYP 典型值	MAX 最大值	UNIT 单位
Cathode-Anode breakdown voltage 阴极-阳极击穿电压	$V_{(BR)}$	I_R = 0.25mA, T_{vj} = 25°C		1200			V
Forward voltage drop 正向压降	V_F	I_F = 300 A	T_{vj} = 25 °C		1.60		V
			T_{vj} = 125 °C		1.60		V
			T_{vj} = 175 °C		1.60		V
Reverse leakage current 反向漏电流	I_R	V_R = 1200 V	T_{vj} = 25 °C			3	µA
Peak reverse recovery current 反向恢复峰值电流	I_{RM}	V_R = 600 V, I_F = 300 A, dI/dt = 2300 A/µs (175°C), R_G = 1.5 Ω, V_{GE} = ± 15 V, IGBT: SIS0300C120i23	T_{vj} = 25 °C		185		A
			T_{vj} = 125 °C		230		A
			T_{vj} = 175 °C		240		A
Recovery charge 恢复电荷	Q_{rr}		T_{vj} = 25 °C		34		µC
			T_{vj} = 125 °C		60		µC
			T_{vj} = 175 °C		64		µC
Reverse recovery time 反向恢复时间	t_{rr}		T_{vj} = 25 °C		780		ns
			T_{vj} = 125 °C		920		ns
			T_{vj} = 175 °C		950		ns
Reverse recovery energy 反向恢复能量	E_{rec}		T_{vj} = 25 °C		16		mJ
			T_{vj} = 125 °C		25		mJ
			T_{vj} = 175 °C		27		mJ

Mechanical properties 机械特性

PARAMETER 参数		UNIT 单位
Die size 芯片面积	9.19 x 12.47	mm^2
Thickness 厚度	130	µm
Wafer diameter 晶圆直径	200	mm
Maximum chips per wafer 每片晶圆的最大芯片数	218	pcs
Frontside passivation 正面钝化层	Polyimide	
Frontside metal 正面金属	AlSiCu, 5000nm	
Backside metal 背面金属	Al Ni Ag System, 1100nm	

[2] Characteristic values according to IEC 60747-2
[2] 特性值依据 IEC 60747-2

Chip drawing 芯片图



This is an electrostatic sensitive device.
此为静电敏感器件