华润微电子(重庆)有限公司

CRRW117

Wafer - Low VF Trench Schottky , 45V, 30A,0.51V

Features

- Trench MOS schottky technology
- Low stored charge Majority Carrier Conduction
- Low forward voltage drop
- Low leakage current
- Low power loss and high efficiency
- High surge capacity

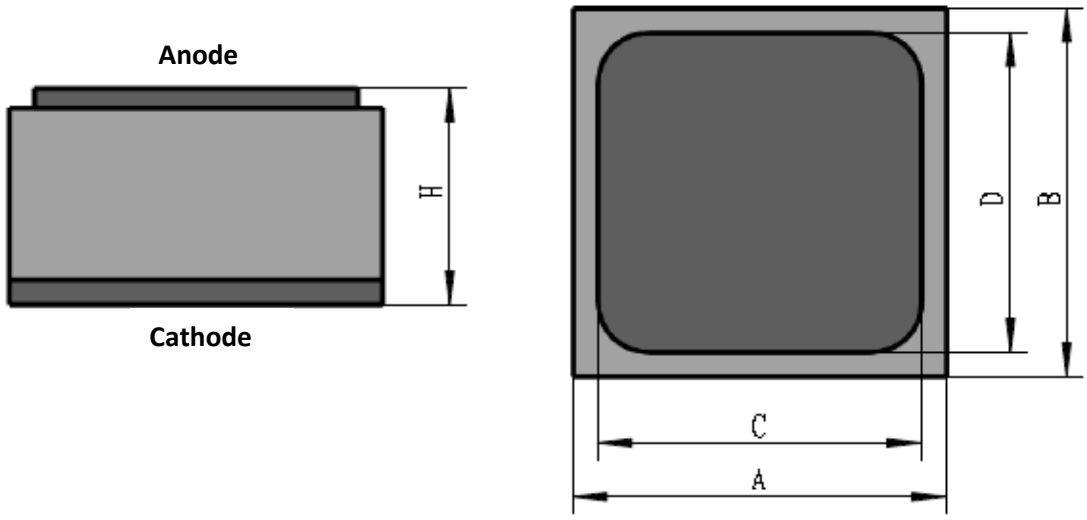
Product Summary

Symbol	Value
V_{RRM}	45V
I_F(AV)	30A
$V_{Ftyp(IF=30A,Tj=25℃)}$	0.51V
IFSM	300A

Applications

- Schottky rectifier design for high frequency switched mode power supplies, such as adaptators and on board DC/DC converters.,or diodes use on solar module,etc.

Chip Structure and Dimension



wafer	Gross Die	A (um) (nominal)	B (um) (nominal)	C±2 (mil)	D±2 (mil)	H±20 (μm)	Io （A）	IFSM（A）
CRRW117	1594	4191	4191	161.85	161.85	290	30	300

Wafer size: 8 inch
Top metal: Ti/Ni/Ag1.4um±10%
Backside metal: Ti/Ni/Ag

Major Ratings and Electrical Characteristics.

Parameter	Symbol	Value			Unit	Test Condition
		min.	typ.	max.		
Breakdown voltage	V_{BR}	45	-	-	V	T_j=25°C, I_R=200uA
Forward Voltage drop	$VF^{(1)}$	-	0.36	-	V	T_j=25°C, I_F=2A
		-	0.43	-		T_j=25°C, I_F=10A
		-	0.45	-		T_j=25°C, I_F=15A
		-	0.47	-		T_j=25°C, I_F=20A
		-	0.51	-		T_j=25°C, I_F=30A
Reverse leakage current	$I_R^{(2)}$	-	-	100	uA	T_j=25°C, V_R=45V
		-	-	100	mA	T_j=125°C, V_R=45V

Notes

(1) Pulse test: 300us pulse width,2% duty cycle

(2) Pulse test: 300us pulse width,2% duty cycle

Storage Condition

存放条件：环境温度25℃，相对湿度<60%.

密封、真空或氮气保存.

Revision History

Revison	Date	Major changes
1.0	2022-11-30	Release of formal version

Disclaimer

Unless otherwise specified in the datasheet, the product is designed and qulified as a standard commercial product and is not intended for use in applications that require extraordinary levels of quality and reliability, such as automotive, aviation/aerospace and life-support devices or systems.

Any and all semicondutor products have certain probability to fail or malfunction, which may result in personal injury, death or property damage. Customer are solely responsible for providing adequate safe measures when design their systems.

CRM(CQ) reserves the right to improve product design, function and reliability without notice.