SILICON DIODE CHIP

This SILICON DIODE CHIP is a TVS and ESD Protection Diode. It has electrical characteristics like lower leakage current, high electrostatic discharge ability and other advantages, it also has extra small size .

Features

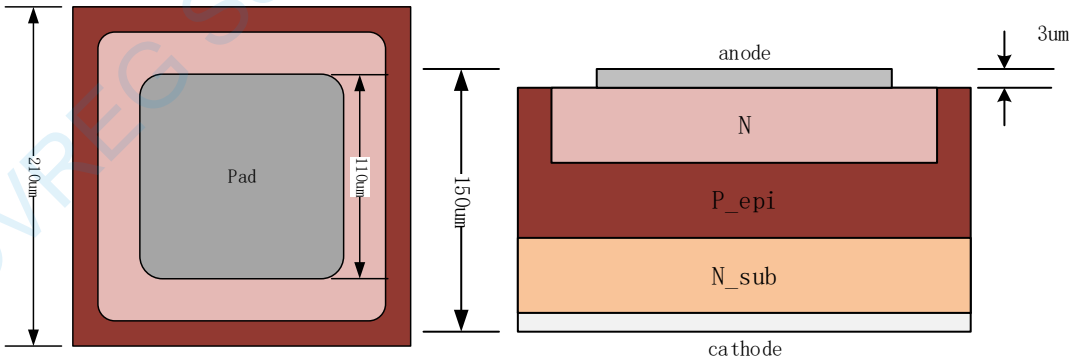
- Si-based N/P/N type
- Ultra-small size 8.27mil * 8.27mil
- Bidirectional configuration

Structure

- Electrode topside (anode)：Aluminum
- Electrode backside (cathode)：Ag

Size

Parameter	Value（mil）	Value（mm）
Wafer size	6000mil	150mm
Chip size （including scribe）	8.27mil x 8.27mil	0.21mm x 0.21mm
Scribe line	2mil	0.05mm
Chip Thickness	6mil ± 0.4mil	0.150mm ± 0.010mm
Top Metal Thickness	0.118mil	0.003mm
Pad Size	4.33mil ± 0.2mil	0.11mm ± 0.005mm



Electrical Characteristics(T= 25℃)

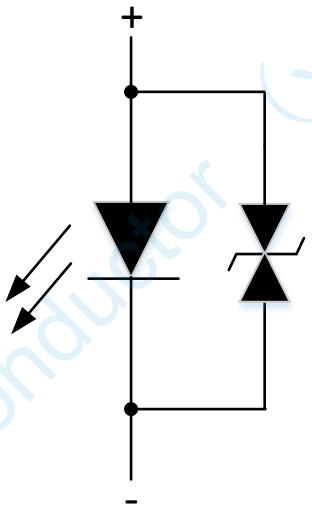
Parameter	Symbol	Test condition	Value	Unit
Junction temperature	Tj		125	℃
Storage temperature	Tstg		-55~150	℃

OVREG Semiconductor (xi'an) Co.,Ltd.

Electrical Characteristics(T= 25℃)

Parameter	Symbol	Min	Type	Max	Unit	Test Conditions
Forward Voltage	V_F	7.5	—	9.0	V	I_F = 1mA
Forward Leakage Current	I_F	—	—	100	nA	V_F = 7V
Reverse Voltage	V_R	7.5	—	9.0	V	I_R = 1mA
Reverse Leakage Current	I_R	—	—	100	nA	V_R = 7V
Peak Pulse Current	I_{PP}	—	8	—	A	8/20us waveform
Clamping Voltage	Vc	—	10	—	V	I_{PP}=8A,8/20us waveform
ESD	—	±30	—	—	kV	IEC 61000-4-2 (AIR)
ESD	—	±30	—	—	kV	IEC 61000-4-2 (CONTACT)
Junction Capacitance	C_J	—	15	—	pF	VR=0V, F=1 MHz,

Schematic and PIN configuration



OVREG Semiconductor (xi'an) Co.,Ltd.