

ZENER DIODE CHIP

This ZENER DIODE CHIP is a device made by the planar ZENER diode process. It has electrical characteristics like lower leakage current, high electrostatic discharge ability and other advantages, it also has extra small size .

● Features

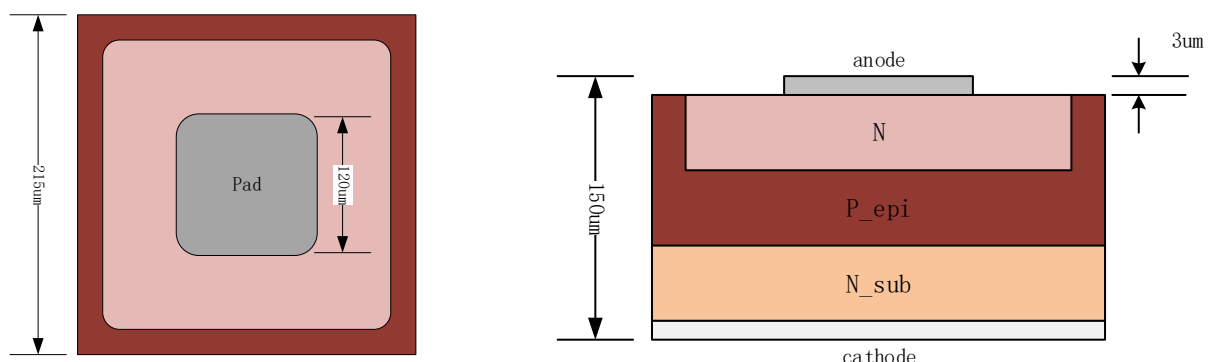
- ▶ Si-based NPN type
- ▶ Ultra-small size 8.5mil * 8.5mil

● Structure

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

● Size

Parameter	Value (mil)	Value (mm)
Chip size (including scribe)	8.5mil x 8.5mil (±0.2mil)	0.215mm x 0.215mm (±0.005mm)
Scribe line	2mil	0.05mm
Chip Thickness	6mil ± 0.4mil	0.150mm ± 0.010mm
Top Metal Thickness	0.118mil	0.003mm
Pad Size	4.8mil ± 0.2mil	0.120mm ± 0.005mm



● Electrical Characteristics(T= 25°C)

Parameter	Symbol	Test condition	Value	Unit
Junction temperature	T _j		125	°C
Storage temperature	T _{stg}		-55~150	°C

Electrical Characteristics(T= 25℃)

Parameter	Symbol	Min	Type	Max	Unit	Test Conditions
Forward Voltage	V_F	3.6	—	4.5	V	$I_F = 1\text{mA}$
Forward Voltage	V_F	3.6	—	4.5	V	$I_F = 10\text{mA}$
Forward Leakage Current	I_F	—	—	200	nA	$V_F = 3.3\text{V}$
Reverse Voltage	V_R	3.6	—	4.5	V	$I_R = 1\text{mA}$
Reverse Voltage	V_R	3.6	—	4.5	V	$I_R = 10\text{mA}$
Reverse Leakage Current	I_R	—	—	200	nA	$V_R = 3.3\text{V}$
ESD	—	± 30	—	—	kV	IEC 61000-4-2 (AIR)
ESD	—	± 30	—	—	kV	IEC 61000-4-2 (CONTACT)
ESD	—	± 8	—	—	KV	HBM
Junction Capacitance	C_J	—	20	—	pF	$V_R = 0\text{V}$, $F = 1\text{MHz}$

Schematic and PIN configuration

