

**1. Scope :**

This specification applies to N/P silicon zener diode chips,  
Device NO. SD-40812GVA

**2. Structure :**

- 2-1. Planar type : N/P Diode
- 2-2. Electrodes :  
Top side : Gold pad.  
Back side : SnAu alloy.

**3. Size :**

- 3-1. \*1 Chip size : 8.5 mils x 8.5 mils (0.215 mm x 0.215 mm ).
- 3-2. Chip thickness : 4.0 ± 1.0 mils (0.100 ± 0.025 mm ).
- 3-3. Active area : 5.3 mils x 5.3 mils (0.135 mm x 0.135 mm).
- 3-4. \*2 Bonding pad : 5.9 mils x 5.9 mils (0.150 mm x 0.150 mm) .
- 3-5. Pattern drawing : Refer to the attached drawing.

\*1 Including scribing line. The chip size is about (0.190±0.015)<sup>2</sup>mm<sup>2</sup> after dicing.

\*2 The bonding pad dimension is (0.150±0.015)<sup>2</sup>mm<sup>2</sup>.

**4. Electrical characteristics (Ta = 25 °C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
*3 Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =8V Ee=0mW/cm <sup>2</sup>			100	nA
*3 Zener Voltage	V <sub>Z</sub>	I <sub>Z</sub> =5mA Ee=0mW/cm <sup>2</sup>	9		15	V
*3 Forward Voltage	V <sub>f</sub>	I <sub>F</sub> =20mA Ee=0mW/cm <sup>2</sup>			1.2	V

\*3 Based on 100% probing.

