

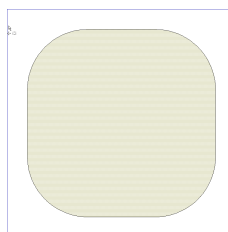
### CS08U5P0MS2P

### Bi-Directional ESD Diode

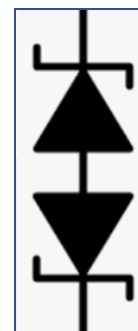
#### Wafer Information

| Item                          | Description         |
|-------------------------------|---------------------|
| Wafer Size                    | 6 inch (150mm)      |
| Wafer Thickness               | 150um ± 15um        |
| Die Size (with scribe lane)   | 200um x 200um       |
| Bond Pad Opening              | 140um x 140um       |
| Scribe Lane Width             | 40um                |
| Gross Die Per Wafer           | 382000              |
| Top Metal (for wire bond)     | 4um AlSiCu          |
| Backside Metal (for die bond) | TiNiAgSn 1/3/5/14KA |

#### Die Appearance



#### Circuit Diagram



- Complies with IEC 61000-4-2 standards:  
Contact discharge: ±16kV

#### Absolute Maximum Ratings (T<sub>A</sub>=25 °C unless otherwise specified)

| Parameter                   | Symbol           | Value       | Unit |
|-----------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20μs)   | Ppk              | 28          | W    |
| Peak Pulse Current (8/20μs) | IPP              | 2.4         | A    |
| Operating Temperature Range | T <sub>J</sub>   | -55 to +125 | °C   |
| Storage Temperature Range   | T <sub>stg</sub> | -55 to +150 | °C   |

#### Electrical Characteristics (T<sub>A</sub>=25 °C unless otherwise specified)

| Parameter               | Symbol         | Min | Typ | Max | Unit | Test Condition              |
|-------------------------|----------------|-----|-----|-----|------|-----------------------------|
| Reverse Working Voltage | VRWM           |     |     | 5   | V    |                             |
| Breakdown Voltage       | VBR            | 5.6 |     | 7.6 | V    | IT = 1mA                    |
| Reverse Leakage Current | IR             |     |     | 1   | uA   | VRWM = 5V                   |
| Clamping Voltage        | VC             |     |     | 9   | V    | IPP = 1A (8 x 20μs pulse)   |
| Clamping Voltage        | VC             |     |     | 12  | V    | IPP = 2.4A (8 x 20μs pulse) |
| Junction Capacitance    | C <sub>J</sub> |     | 5   |     | pF   | VR = 0V, f = 1MHz           |

**Note:** Electrical parameters are only for die, performance may alter after assembly.