

# Bidirectional ESD / Transient Suppressors



## CEE / CEF Series-G (RoHS Device)

**Current: 5.1A**

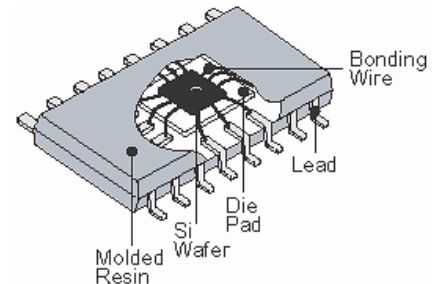
**Voltage: 5V, 24V**

### Features

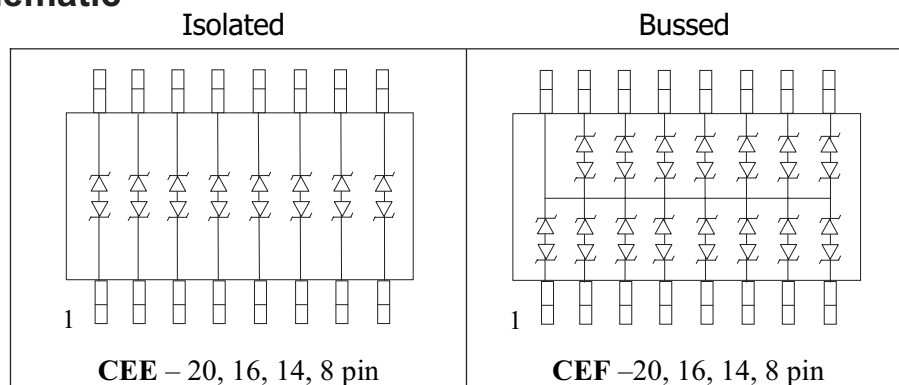
- (16kV) IEC 61000-4-2 rating
- Surface Mount Package
- High Component Density

### Applications

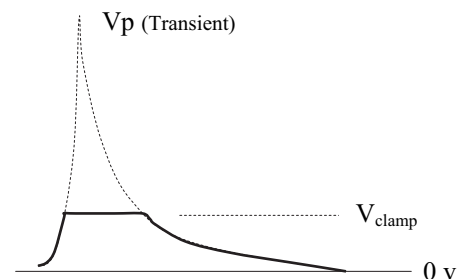
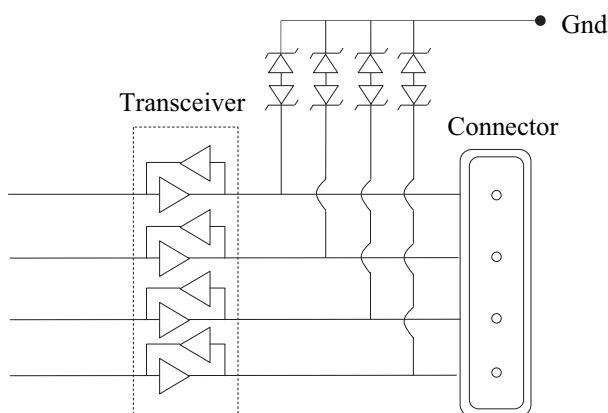
- ESD Suppression
- Transient Suppression



### Circuit Schematic



### Application Schematic



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**Specifications:**( Ta = 25°C )

## 24V Characteristic (CAN bus)

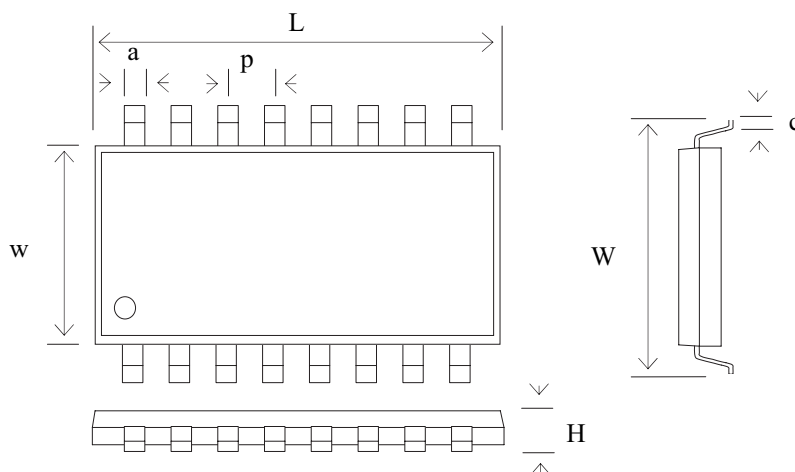
| Symbol            | Characteristic              | Min | Typ | Max  | Units | Test Condition        |
|-------------------|-----------------------------|-----|-----|------|-------|-----------------------|
| V <sub>BD</sub>   | Diode breakdown voltage     | 25  | 28  | 35   | V     | I <sub>F</sub> = 1 ma |
| I <sub>L</sub>    | Leakage current             |     | 0.1 | 2.0  | uA    | 24v                   |
| C <sub>T</sub>    | Capacitance                 |     | 15  |      | pF    | @ 1Mhz                |
| V <sub>ESD</sub>  | Channel clamp voltage       |     | -   | ± 28 | V     | 8kV event             |
| V <sub>PV</sub>   | Peak ESD voltage capability |     |     | 16   | kV    | IEC 61000-4-2         |
| I <sub>pp</sub> * | Peak Pulse Current          |     |     | 15   | A     | 8 / 20 us             |

## 5V0 Characteristic

| Symbol            | Characteristic              | Min | Typ  | Max   | Units | Test Condition        |
|-------------------|-----------------------------|-----|------|-------|-------|-----------------------|
| V <sub>BD</sub>   | Diode breakdown voltage     | 5.1 | 7.0  | 10    | V     | I <sub>F</sub> = 1 ma |
| I <sub>L</sub>    | Leakage current             |     | ±0.1 | ± 2.0 | uA    | 5v                    |
| C <sub>T</sub>    | Capacitance                 |     | 15   | 20    | pF    | @ 1Mhz                |
| V <sub>ESD</sub>  | Channel clamp voltage       |     | -    | ± 7.0 | V     | 8kV event             |
| V <sub>PV</sub>   | Peak ESD voltage capability |     |      | 16    | kV    | IEC 61000-4-2         |
| I <sub>pp</sub> * | Peak Pulse Current          |     |      | 5.1   | A     | 8 / 20 us             |

\* one diode conducting

## Package Information:



Dimensions in ( mm ):

| Package Code | Package Power | Number of Pins | L ± 0.2 | W ± 0.2 | w ± 0.2 | H ± 0.2 | p ± 0.1 | a ± 0.1 | c ± 0.1 |
|--------------|---------------|----------------|---------|---------|---------|---------|---------|---------|---------|
| N08          | 0.4 w         | 08             | 4.83    | 5.99    | 3.81    | 1.60    | 1.27    | 0.41    | 0.66    |
| N14          | 0.6 w         | 14             | 8.66    | 5.99    | 3.81    | 1.60    | 1.27    | 0.41    | 0.66    |
| N16          | 0.8 w         | 16             | 9.91    | 5.99    | 3.81    | 1.60    | 1.27    | 0.41    | 0.66    |
| Q16          | 0.8 w         | 16             | 9.91    | 5.99    | 3.81    | 1.6     | .0635   | 0.25    | 0.66    |
| W16          | 1.0 w         | 16             | 10.44   | 10.36   | 7.62    | 2.40    | 1.27    | 0.41    | 0.66    |
| W20          | 1.2 w         | 20             | 12.70   | 10.36   | 7.62    | 2.40    | 1.27    | 0.41    | 0.66    |

## Ordering Information:

|      |                  |         |                |
|------|------------------|---------|----------------|
| CEE  | N16              | 5V0     | -G             |
| Type | Package Code     | Voltage | RoHS Compliant |
| CEE  | From table above | 5V0     |                |
| CEF  |                  | 24V     |                |