# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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### Ethernet/10BaseT/100BaseT/1000BaseT Protector



The DO-214AA *SIDACtor* Ethernet protection series is intended for applications sensitive to load values. Typically, high speed connections require a lower capacitance.  $C_0$  values are 40% lower than standard devices.

*SIDACtor* devices are used to enable equipment to meet various regulatory requirements including GR 1089, ITU K.20, K.21 and K.45, IEC 60950, UL 60950, and TIA-968-A (formerly known as FCC Part 68).

#### **Electrical Parameters**

| Part<br>Number * | V <sub>DRM</sub><br>Volts | V <sub>S</sub><br>Volts | V <sub>T</sub><br>Volts | I <sub>DRM</sub><br>μAmps | l <sub>S</sub><br>mAmps | I <sub>T</sub><br>Amps | I <sub>H</sub><br>mAmps | C <sub>O</sub><br>pF |
|------------------|---------------------------|-------------------------|-------------------------|---------------------------|-------------------------|------------------------|-------------------------|----------------------|
| P0220S_          | 15                        | 32                      | 4                       | 5                         | 800                     | 2.2                    | 50                      | 50                   |
| P0642S_**        | 58                        | 77                      | 4                       | 5                         | 800                     | 2.2                    | 120                     | 25                   |
| P0722S_**        | 65                        | 88                      | 4                       | 5                         | 800                     | 2.2                    | 120                     | 25                   |
| P0902S_**        | 75                        | 98                      | 4                       | 5                         | 800                     | 2.2                    | 120                     | 25                   |
| P1102S_**        | 90                        | 130                     | 4                       | 5                         | 800                     | 2.2                    | 120                     | 20                   |
| P1302S_          | 120                       | 160                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 20                   |
| P1402S_          | 140                       | 180                     | 4                       | 5                         | 800                     | 2.2                    | 120                     | 20                   |
| P1502S_          | 140                       | 180                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 20                   |
| P1802S_          | 170                       | 220                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 15                   |
| P2302S_          | 190                       | 260                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 15                   |
| P2602S_          | 220                       | 300                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 15                   |
| P3002S_          | 280                       | 360                     | 4                       | 5                         | 800                     | 2.2                    | 120                     | 15                   |
| P3502S_          | 320                       | 400                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 15                   |
| P4802S_          | 440                       | 600                     | 4                       | 5                         | 800                     | 2.2                    | 120                     | 15                   |

\* For surge ratings, see table below.

\*\* Contact factory for release date.

General Notes:

• All measurements are made at an ambient temperature of 25 °C. IPP applies to -40 °C through +85 °C temperature range.

-  $I_{\mbox{\scriptsize PP}}$  is a repetitive surge rating and is guaranteed for the life of the product.

Listed SIDACtor devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.

V<sub>DRM</sub> is measured at I<sub>DRM</sub>.

V<sub>S</sub> is measured at 100 V/µs.

• Special voltage (V<sub>S</sub> and V<sub>DRM</sub>) and holding current (I<sub>H</sub>) requirements are available upon request.

• Off-state capacitance ( $C_0$ ) is measured at 1 MHz with a 2 V bias.

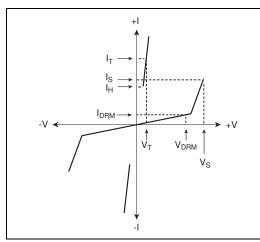
#### Surge Ratings

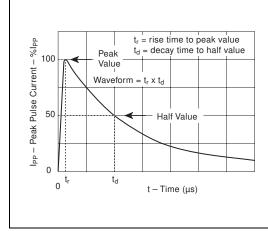
| Series | l <sub>PP</sub><br>2x10 μs<br>Amps | l <sub>PP</sub><br>8x20 μs<br>Amps | l <sub>PP</sub><br>10x160 μs<br>Amps | l <sub>PP</sub><br>10x560 μs<br>Amps | l <sub>PP</sub><br>10x1000 μs<br>Amps | I <sub>TSM</sub><br>60 Hz<br>Amps | di/dt<br>Amps/µs |
|--------|------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|-----------------------------------|------------------|
| А      | 150                                | 150                                | 90                                   | 50                                   | 45                                    | 20                                | 500              |
| В      | 250                                | 250                                | 150                                  | 100                                  | 80                                    | 30                                | 500              |

**Data Sheets** 

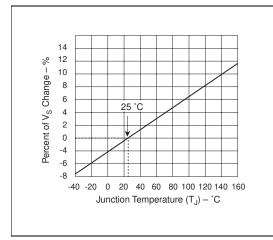
#### Thermal Considerations

| Package  | Symbol    | Parameter                               | Value       | Unit |
|----------|-----------|---|-------------|------|
| DO-214AA | TJ        | Operating Junction Temperature Range    | -40 to +150 | °C   |
|          | TS        | Storage Temperature Range               | -65 to +150 | °C   |
|          | $R_{0JA}$ | Thermal Resistance: Junction to Ambient | 90          | °C/W |



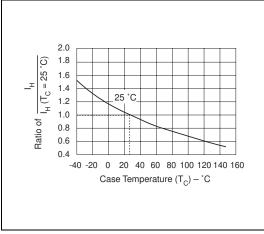


V-I Characteristics



Normalized  $\mathsf{V}_S$  Change versus Junction Temperature





Normalized DC Holding Current versus Case Temperature