

Distributed by:



**[www.Jameco.com](http://www.Jameco.com) ♦ 1-800-831-4242**

The content and copyrights of the attached  
material are the property of its owner.

Jameco Part Number 1761338

## SIDACtor Device



DO-214AA *SIDACtor* solid state protection devices protect telecommunications equipment such as modems, line cards, fax machines, and other CPE.

*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 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 | I <sub>S</sub><br>mAmps | I <sub>T</sub><br>Amps | I <sub>H</sub><br>mAmps | C <sub>O</sub><br>pF |
|---------------|---------------------------|-------------------------|-------------------------|---------------------------|-------------------------|------------------------|-------------------------|----------------------|
| P0080S_       | 6                         | 25                      | 4                       | 5                         | 800                     | 2.2                    | 50                      | 100                  |
| P0220S_       | 15                        | 32                      | 4                       | 5                         | 800                     | 2.2                    | 50                      | 50                   |
| P0300S_       | 25                        | 40                      | 4                       | 5                         | 800                     | 2.2                    | 50                      | 110                  |
| P0640S_       | 58                        | 77                      | 4                       | 5                         | 800                     | 2.2                    | 150                     | 50                   |
| P0720S_       | 65                        | 88                      | 4                       | 5                         | 800                     | 2.2                    | 150                     | 50                   |
| P0900S_       | 75                        | 98                      | 4                       | 5                         | 800                     | 2.2                    | 150                     | 50                   |
| P1100S_       | 90                        | 130                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 40                   |
| P1300S_       | 120                       | 160                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 40                   |
| P1500S_       | 140                       | 180                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 40                   |
| P1800S_       | 170                       | 220                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 30                   |
| P2300S_       | 190                       | 260                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 30                   |
| P2600S_       | 220                       | 300                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 30                   |
| P3100S_       | 275                       | 350                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 30                   |
| P3500S_       | 320                       | 400                     | 4                       | 5                         | 800                     | 2.2                    | 150                     | 30                   |

\* For individual "SA", "SB", and "SC" surge ratings, see table below.

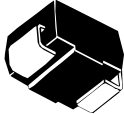
#### General Notes:

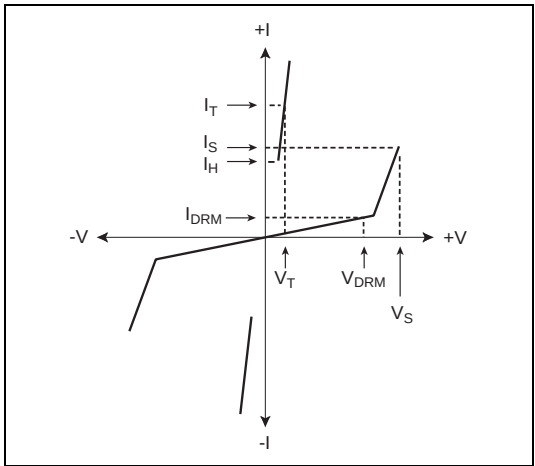
- All measurements are made at an ambient temperature of 25 °C. I<sub>PP</sub> applies to -40 °C through +85 °C temperature range.
- I<sub>PP</sub> is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACtor* devices are bi-directional. All electrical parameters and 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<sub>O</sub>) is measured at 1 MHz with a 2 V bias and is a typical value for "SA" and "SB" product. "SC" capacitance is approximately 2x the listed value. The off-state capacitance of the P0080SB is equal to the "SC" device.

### Surge Ratings

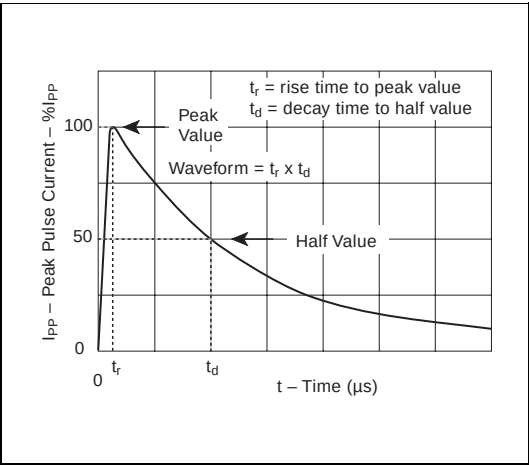
| Series | I <sub>PP</sub><br>2x10 μs<br>Amps | I <sub>PP</sub><br>8x20 μs<br>Amps | I <sub>PP</sub><br>10x160 μs<br>Amps | I <sub>PP</sub><br>10x560 μs<br>Amps | I <sub>PP</sub><br>10x1000 μs<br>Amps | I <sub>TSM</sub><br>60 Hz<br>Amps | di/dt<br>Amps/μs |
|--------|------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|-----------------------------------|------------------|
| A      | 150                                | 150                                | 90                                   | 50                                   | 45                                    | 20                                | 500              |
| B      | 250                                | 250                                | 150                                  | 100                                  | 80                                    | 30                                | 500              |
| C      | 500                                | 400                                | 200                                  | 150                                  | 100                                   | 50                                | 500              |

Thermal Considerations

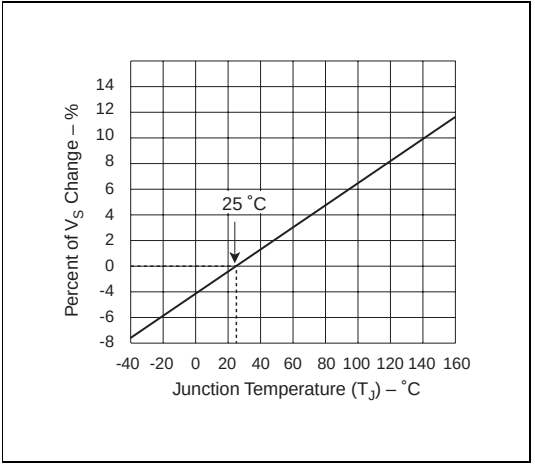
| Package                                                                           | Symbol          | Parameter                               | Value       | Unit |
|-----------------------------------------------------------------------------------|-----------------|-----------------------------------------|-------------|------|
|  | $T_J$           | Operating Junction Temperature Range    | -40 to +150 | °C   |
|                                                                                   | $T_S$           | Storage Temperature Range               | -65 to +150 | °C   |
|                                                                                   | $R_{\theta JA}$ | Thermal Resistance: Junction to Ambient | 90          | °C/W |



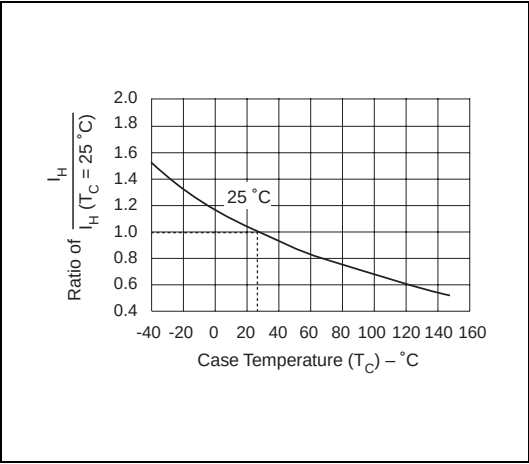
V-I Characteristics



$t_r \times t_d$  Pulse Wave-form



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets