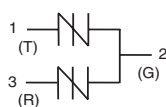


## Compak *TwinCHIP™* *SIDACtor®* Device



The modified DO-214AA *SIDACtor* devices provide low-cost, longitudinal protection.

*SIDACtor* devices enable equipment to comply with 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>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 |
|----------------|---------------------------|-------------------------|---------------------------|-------------------------|-------------------------|---------------------------|-------------------------|------------------------|-------------------------|
|                | Pins 1-2, 2-3             |                         | Pins 1-3                  |                         |                         |                           |                         |                        |                         |
| P1402C_L       | 58                        | 77                      | 116                       | 154                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |
| P1602C_L       | 65                        | 95                      | 130                       | 190                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |
| P2202C_L       | 90                        | 130                     | 180                       | 260                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |
| P2702C_L       | 120                       | 160                     | 240                       | 320                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |
| P3002C_L       | 140                       | 180                     | 280                       | 360                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |
| P3602C_L       | 170                       | 220                     | 340                       | 440                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |
| P4202C_L       | 190                       | 250                     | 380                       | 500                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |
| P4802C_L       | 220                       | 300                     | 440                       | 600                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |
| P6002C_L       | 275                       | 350                     | 550                       | 700                     | 4                       | 5                         | 800                     | 2.2                    | 120                     |

\* "L" in part number indicates RoHS compliance. For non-RoHS compliant device, delete "L" from part number.

For 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.
- UL 60950 creepage requirements must be considered.

### Surge Ratings in Amps

| Series | I <sub>PP</sub> |         |           |           |           |          |           |            |           | I <sub>TSM</sub><br>50 / 60 Hz | di/dt |
|--------|-----------------|---------|-----------|-----------|-----------|----------|-----------|------------|-----------|--------------------------------|-------|
|        | 0.2x310 *       | 2x10 *  | 8x20 *    | 10x160 *  | 10x560 *  | 5x320 *  | 10x360 *  | 10x1000 *  | 5x310 *   |                                |       |
|        | 0.5x700 **      | 2x10 ** | 1.2x50 ** | 10x160 ** | 10x560 ** | 9x720 ** | 10x360 ** | 10x1000 ** | 10x700 ** |                                |       |
| A      | 20              | 150     | 150       | 90        | 50        | 75       | 75        | 45         | 75        | 20                             | 500   |
| B      | 25              | 250     | 250       | 150       | 100       | 100      | 125       | 80         | 100       | 30                             | 500   |

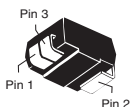
\* Current waveform in μs

\*\* Voltage waveform in μs

Note: Contact factory for release date of Series B.

SIDACtor Devices

### Thermal Considerations

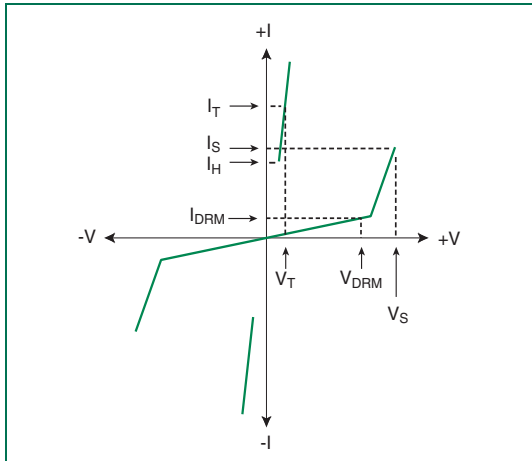
| Package                                                                           | Symbol           | Parameter                               | Value       | Unit |
|-----------------------------------------------------------------------------------|------------------|-----------------------------------------|-------------|------|
|  | T <sub>J</sub>   | Operating Junction Temperature Range    | -40 to +150 | °C   |
|                                                                                   | T <sub>S</sub>   | Storage Temperature Range               | -65 to +150 | °C   |
|                                                                                   | R <sub>θJA</sub> | Thermal Resistance: Junction to Ambient | 85          | °C/W |

### Capacitance Values

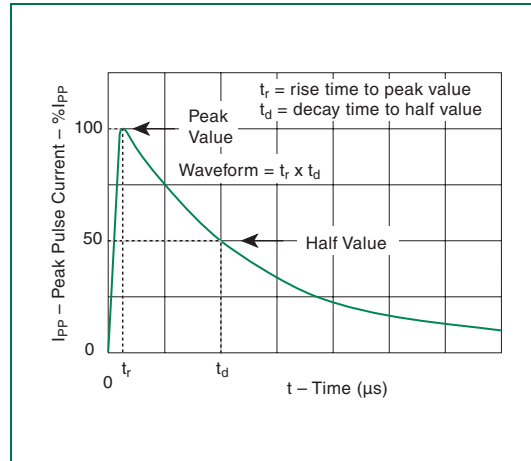
| Part Number * | pF<br>Pin 1-2 / 3-2<br>Tip-Ground, Ring-Ground |     | pF<br>Pin 1-3<br>Tip-Ring |     |
|---------------|------------------------------------------------|-----|---------------------------|-----|
|               | MIN                                            | MAX | MIN                       | MAX |
| P1402C[A/B]L  | 30                                             | 55  | 15                        | 35  |
| P1602C[A/B]L  | 30                                             | 55  | 15                        | 30  |
| P2202C[A/B]L  | 25                                             | 50  | 15                        | 30  |
| P2702C[A/B]L  | 25                                             | 45  | 10                        | 25  |
| P3002C[A/B]L  | 20                                             | 40  | 10                        | 25  |
| P3602C[A/B]L  | 20                                             | 40  | 10                        | 25  |
| P4202C[A/B]L  | 20                                             | 40  | 10                        | 25  |
| P4802C[A/B]L  | 20                                             | 35  | 10                        | 20  |
| P6002C[A/B]L  | 15                                             | 35  | 10                        | 20  |

\* [A/B] in part number indicates that values are for both A and B surge ratings.

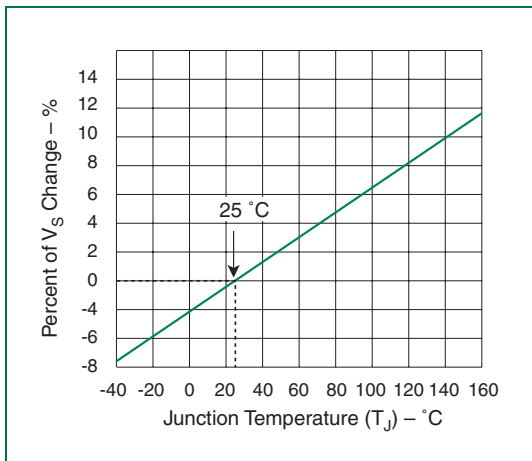
Note: Off-state capacitance (C<sub>O</sub>) is measured at 1 MHz with a 2 V bias.



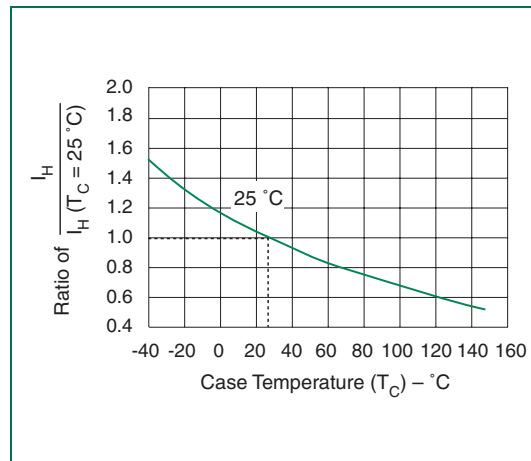
V-I Characteristics



$t_r \times t_d$  Pulse Waveform



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

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