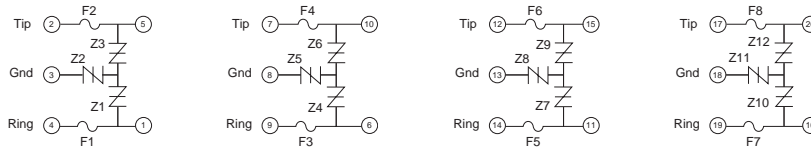


## Four-Port Balanced Three-chip Protector

This hybrid Single In-line Package (SIP) protects four twisted pairs from overcurrent and overvoltage conditions. Comprised of twelve discrete DO-214AA *SIDACTor* devices and eight *TeleLink* surface mount fuses, it is ideal for densely populated line cards that cannot afford PCB inefficiencies or the use of series power resistors. Surge current ratings up to 500 A are available.



### Electrical Parameters

| Part Number * | V <sub>DRM</sub> Volts                              | V <sub>S</sub> Volts | V <sub>DRM</sub> Volts      | V <sub>S</sub> Volts | V <sub>T</sub> Volts | I <sub>DRM</sub> μAmps | I <sub>S</sub> mAmps | I <sub>T</sub> Amps | I <sub>H</sub> mAmps | C <sub>O</sub> pF |
|---------------|---|----------------------|-----------------------------|----------------------|----------------------|------------------------|----------------------|---------------------|----------------------|-------------------|
|               | Pins 2-3, 4-3, 7-8, 9-8, 12-13, 14-13, 17-18, 19-18 |                      | Pins 2-4, 7-9, 12-14, 17-19 |                      |                      |                        |                      |                     |                      |                   |
| P1553Z_       | 130   | 180                  | 130                         | 180                  | 8                    | 5                      | 800                  | 2.2                 | 150                  | 40                |
| P1803Z_       | 150   | 210                  | 150                         | 210                  | 8                    | 5                      | 800                  | 2.2                 | 150                  | 40                |
| P2103Z_       | 170   | 250                  | 170                         | 250                  | 8                    | 5                      | 800                  | 2.2                 | 150                  | 40                |
| P2353Z_       | 200   | 270                  | 200                         | 270                  | 8                    | 5                      | 800                  | 2.2                 | 150                  | 40                |
| P2703Z_       | 230   | 300                  | 230                         | 300                  | 8                    | 5                      | 800                  | 2.2                 | 150                  | 30                |
| P3203Z_       | 270   | 350                  | 270                         | 350                  | 8                    | 5                      | 800                  | 2.2                 | 150                  | 30                |
| P3403Z_       | 300   | 400                  | 300                         | 400                  | 8                    | 5                      | 800                  | 2.2                 | 150                  | 30                |
| A2106Z_ **    | 170   | 250                  | 50                          | 80                   | 8                    | 5                      | 800                  | 2.2                 | 120                  | 40                |
| A5030Z_ **    | 400   | 550                  | 270                         | 340                  | 8                    | 5                      | 800                  | 2.2                 | 150                  | 30                |

\* For individual "ZA," "ZB," and "ZC" surge ratings, see table below.

\*\* Asymmetrical

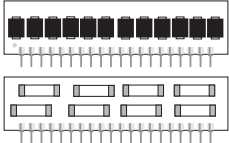
#### General Notes:

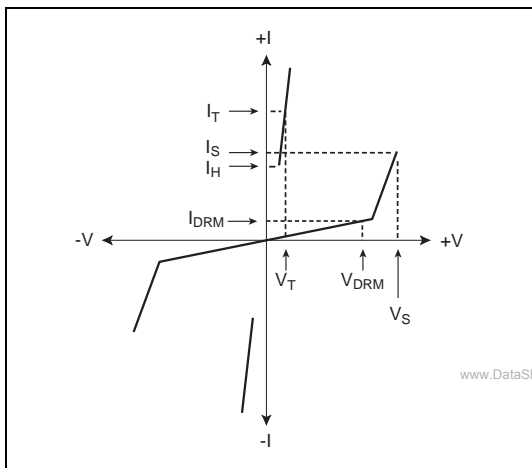
- All measurements are made at an ambient temperature of 25 °C. I<sub>PP</sub> applies to -40 °C through +85 °C temperature range.
- I<sub>PP</sub> is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACTor* devices are bi-directional. All electrical parameters and 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 is measured between Pins 4-3 and Pins 2-3 at 1 MHz with a 2 V bias and is a typical value for "ZA" product. "ZB" and "ZC" capacitance is approximately 10 pF higher.
- Device is designed to meet balance requirements of GTS 8700 and GR 974.

### Surge Ratings

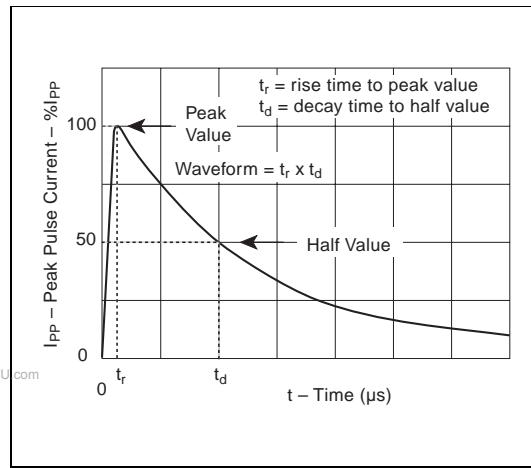
| Series | I <sub>PP</sub> 2x10 μs Amps | I <sub>PP</sub> 8x20 μs Amps | I <sub>PP</sub> 10x160 μs Amps | I <sub>PP</sub> 10x560 μs Amps | I <sub>PP</sub> 10x1000 μs Amps | I <sub>TSM</sub> 60 Hz Amps | di/dt Amps/μs |
|--------|------------------------------|------------------------------|--------------------------------|--------------------------------|---------------------------------|-----------------------------|---------------|
| 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

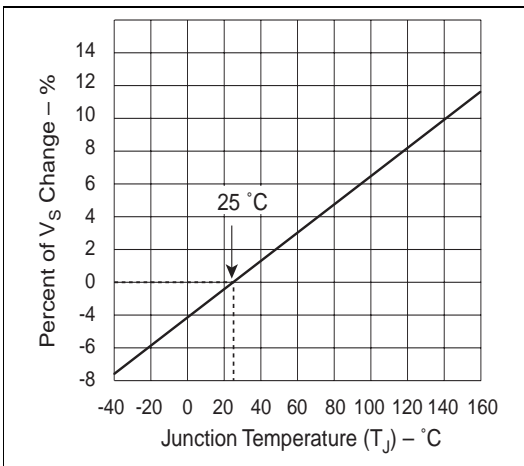
| Package   | Symbol          | Parameter                               | Value       | Unit                 |
|---|-----------------|---|-------------|----------------------|
|  | $T_J$           | Operating Junction Temperature Range    | -40 to +150 | $^{\circ}\text{C}$   |
|   | $T_S$           |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



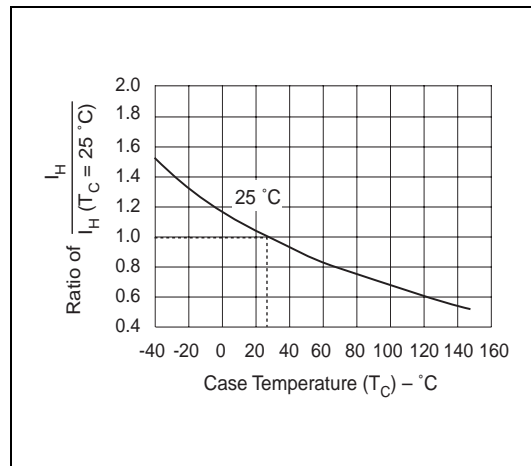
V-I Characteristics



$t_r \times t_d$  Pulse Waveform



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets