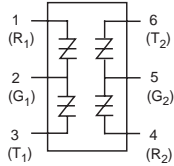


Multiport SIDACtor Device



The multiport line protector is an integrated multichip solution for protecting multiple twisted pair from overvoltage conditions. Based on a six-pin surface mount SOIC package, it is equivalent to four discrete DO-214AA or two TO-220 packages. Available in surge current ratings up to 500 A, the multiport line protector is ideal for densely populated, high-speed line cards that cannot afford PCB inefficiencies or the use of series power resistors.

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 _{DRM} Volts | V _S Volts | V _{DRM} Volts | V _S Volts | V _T Volts | I _{DRM} μAmps | I _S mAmps | I _T Amps | I _H mAmps | C _O pF |
|---------------|-------------------------|----------------------|------------------------|----------------------|----------------------|------------------------|----------------------|---------------------|----------------------|-------------------|
| | Pins 1-2, 3-2, 4-5, 6-5 | | Pins 1-3, 4-6 | | | | | | | |
| P0084U_ | 6 | 25 | 12 | 50 | 4 | 5 | 800 | 2.2 | 50 | 100 |
| P0304U_ | 25 | 40 | 50 | 80 | 4 | 5 | 800 | 2.2 | 50 | 110 |
| P0644U_ | 58 | 77 | 116 | 154 | 4 | 5 | 800 | 2.2 | 150 | 50 |
| P0724U_ | 65 | 88 | 130 | 176 | 4 | 5 | 800 | 2.2 | 150 | 50 |
| P0904U_ | 75 | 98 | 150 | 196 | 4 | 5 | 800 | 2.2 | 150 | 50 |
| P1104U_ | 90 | 130 | 180 | 260 | 4 | 5 | 800 | 2.2 | 150 | 40 |
| P1304U_ | 120 | 160 | 240 | 320 | 4 | 5 | 800 | 2.2 | 150 | 40 |
| P1504U_ | 140 | 180 | 280 | 360 | 4 | 5 | 800 | 2.2 | 150 | 40 |
| P1804U_ | 170 | 220 | 340 | 440 | 4 | 5 | 800 | 2.2 | 150 | 30 |
| P2304U_ | 190 | 260 | 380 | 520 | 4 | 5 | 800 | 2.2 | 150 | 30 |
| P2604U_ | 220 | 300 | 440 | 600 | 4 | 5 | 800 | 2.2 | 150 | 30 |
| P3104U_ | 275 | 350 | 550 | 700 | 4 | 5 | 800 | 2.2 | 150 | 30 |
| P3504U_ | 320 | 400 | 640 | 800 | 4 | 5 | 800 | 2.2 | 150 | 30 |

* For individual "UA", "UB", and "UC" surge ratings, see table below.

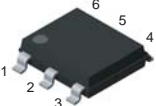
General Notes:

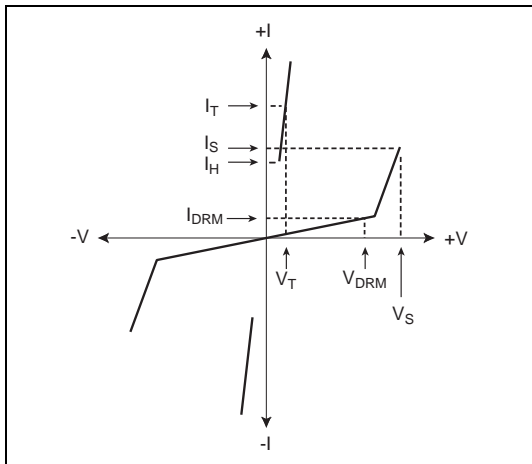
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed SIDACtor devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM}, and V_S is measured at 100 V/μs.
- Off-state capacitance (C_O) is measured between Pins 1-2 and 3-2 at 1 MHz with a 2 V bias and is a typical value for "UA" product. "UB" and "UC" capacitance is approximately 2x higher.

Surge Ratings

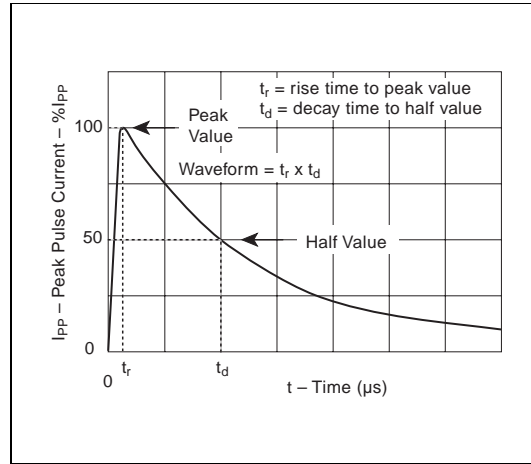
| Series | I _{PP} 2x10 μs Amps | I _{PP} 8x20 μs Amps | I _{PP} 10x160 μs Amps | I _{PP} 10x560 μs Amps | I _{PP} 10x1000 μs Amps | I _{TSM} 60 Hz Amps | di/dt Amps/μs |
|--------|------------------------------|------------------------------|--------------------------------|--------------------------------|---------------------------------|-----------------------------|---------------|
| 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

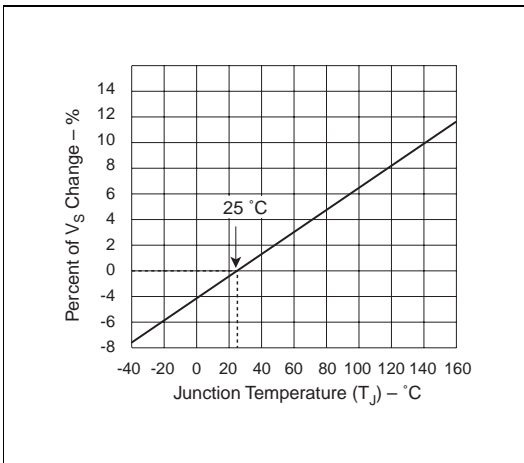
| Package | Symbol | Parameter | Value | Unit |
|---|-----------------|---|-------------|----------------------|
|  | T_J | Operating Junction Temperature Range | -40 to +150 | $^{\circ}\text{C}$ |
| | T_S | Storage Temperature Range | -65 to +150 | $^{\circ}\text{C}$ |
| | $R_{\theta JA}$ | Thermal Resistance: Junction to Ambient | 60 | $^{\circ}\text{C/W}$ |



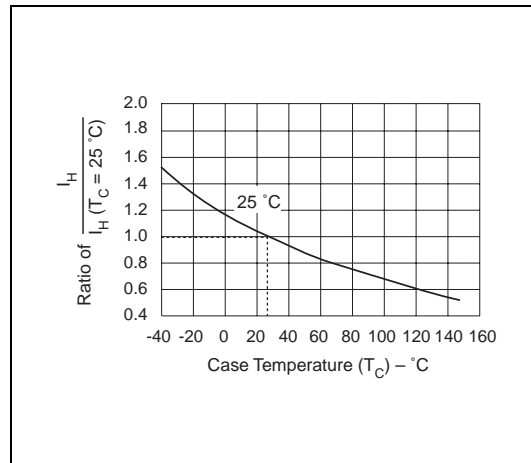
V-I Characteristics



$t_r \times t_d$ Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets