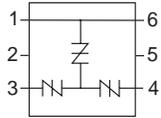


Balanced Three-chip SIDACtor Device



This balanced protector is a surface mount alternative to the modified TO-220 package. Based on a six-pin surface mount SOIC package, it uses Littelfuse's patented "Y" (US Patent 4,905,119) configuration. It is available in surge current ratings up to 500 A.

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 1-3, 1-4 | | Pins 3-4 | | | | | | | |
| P1553U_ | 130 | 180 | 130 | 180 | 8 | 5 | 800 | 2.2 | 150 | 80 |
| P1803U_ | 150 | 210 | 150 | 210 | 8 | 5 | 800 | 2.2 | 150 | 80 |
| P2103U_ | 170 | 250 | 170 | 250 | 8 | 5 | 800 | 2.2 | 150 | 80 |
| P2353U_ | 200 | 270 | 200 | 270 | 8 | 5 | 800 | 2.2 | 150 | 80 |
| P2703U_ | 230 | 300 | 230 | 300 | 8 | 5 | 800 | 2.2 | 150 | 60 |
| P3203U_ | 270 | 350 | 270 | 350 | 8 | 5 | 800 | 2.2 | 150 | 60 |
| P3403U_ | 300 | 400 | 300 | 400 | 8 | 5 | 800 | 2.2 | 150 | 60 |
| P5103U_ | 420 | 600 | 420 | 600 | 8 | 5 | 800 | 2.2 | 150 | 60 |
| A2106U_3 ** | 170 | 250 | 50 | 80 | 8 | 5 | 800 | 2.2 | 120 | 80 |
| A5030U_3 ** | 400 | 550 | 270 | 340 | 8 | 5 | 800 | 2.2 | 150 | 60 |

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

** Asymmetrical

General Notes:

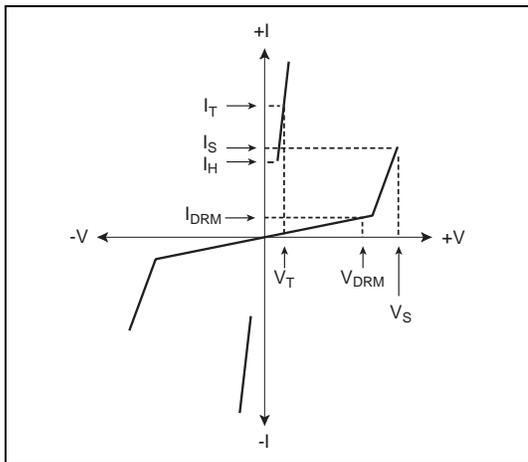
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed SIDACtor devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM}.
- V_S is measured at 100 V/μs.
- Special voltage (V_S and V_{DRM}) and holding current (I_H) requirements are available upon request.
- Off-state capacitance (C_O) is measured between Pins 1-3 and 1-4 at 1 MHz with a 2 V bias and is a typical value for "UA", "UB", and "UC" products.
- Device is designed to meet balance requirements of GTS 8700 and GR 974.

Surge Ratings

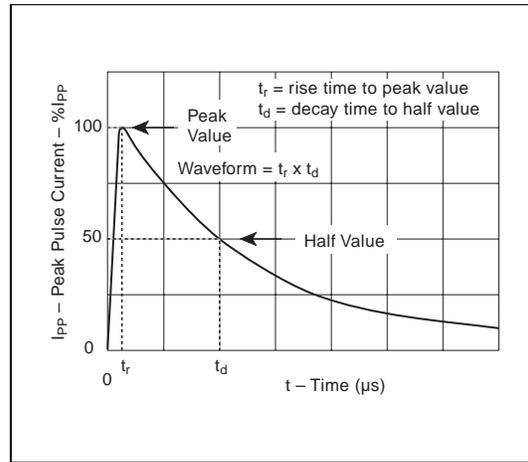
| Series | I _{PP} 2x10 μs Amps | I _{PP} 8x20 μs Amps | I _{PP} 10x160 μs Amps | I _{PP} 10x560 μs Amps | I _{PP} 10x1000 μs Amps | I _{TSM} 60 Hz Amps | di/dt Amps/μs |
|--------|------------------------------|------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------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

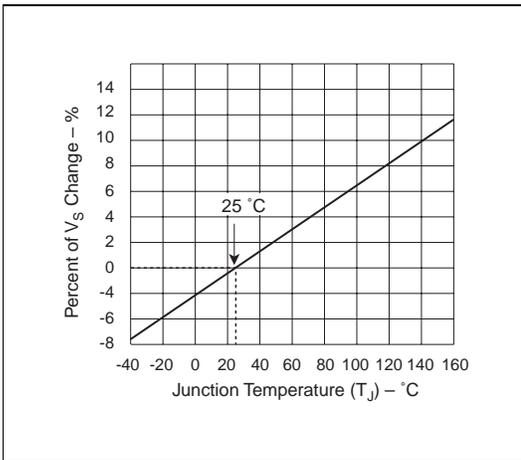
| Package | Symbol | Parameter | Value | Unit |
|---|-----------------|---|-------------|-----------------------------|
|  | T_J | Operating Junction Temperature Range | -40 to +125 | $^{\circ}\text{C}$ |
| | T_S | Storage Temperature Range | -65 to +150 | $^{\circ}\text{C}$ |
| | $R_{\theta JA}$ | Thermal Resistance: Junction to Ambient | 60 | $^{\circ}\text{C}/\text{W}$ |



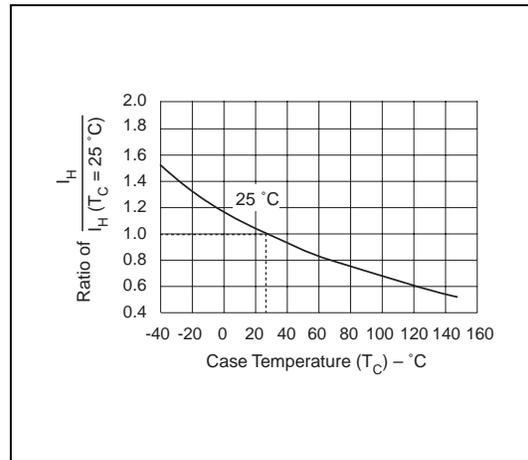
V-I Characteristics



$t_r \times t_d$ Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets