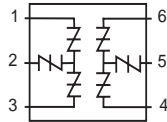


## Multiport Balanced SIDACTor Device



This multiport balanced protector is a surface mount alternative to the modified TO-220 package. It is based on a six-pin surface mount SOIC package and uses Teccor'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 (formerly known as FCC Part 68).

### Electrical Parameters — Symmetrical

Part Number *	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>DRM</sub> Volt	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>DRM</sub> $\mu$ Amps	I <sub>S</sub> mAmps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps	C <sub>O</sub> pF
	Pins 1-2, 2-3, 1-3		Pins 4-5, 5-6, 4-6							
P1556U_	130	180	130	180	8	5	800	2.2	150	40
P1806U_	150	210	150	210	8	5	800	2.2	150	40
P2106U_	170	250	170	250	8	5	800	2.2	150	40
P2356U_	200	270	200	270	8	5	800	2.2	150	40
P2706U_	230	300	230	300	8	5	800	2.2	150	30
P3206U_	270	350	270	350	8	5	800	2.2	150	30
P3406U_	300	400	300	400	8	5	800	2.2	150	30
P5106U_	420	600	420	600	8	5	800	2.2	150	30

### Electrical Parameters — Asymmetrical

Part Number *	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>DRM</sub> Volt	V <sub>S</sub> Volts	V <sub>T</sub> Volts	I <sub>DRM</sub> $\mu$ Amps	I <sub>S</sub> mAmps	I <sub>T</sub> Amps	I <sub>H</sub> mAmps	C <sub>O</sub> pF
	Pins 1-2, 2-3, 4-5, 5-6		Pins 4-6, 1-3							
A2106U_6	170	250	50	80	3.5	5	800	2.2	120	40
A5030U_6	400	550	270	340	3.5	5	800	2.2	150	30

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

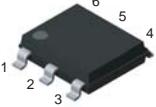
#### General Notes:

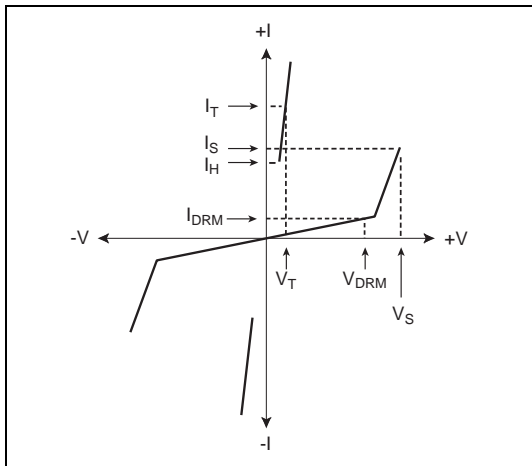
- All measurements are made at an ambient temperature of 25 °C. I<sub>PP</sub> applies to -40 °C through +85 °C temperature range.
- I<sub>PP</sub> is a repetitive surge rating and is guaranteed for the life of the product.
- Listed SIDACTor devices are bi-directional. All electrical parameters and surge 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/ $\mu$ s.
- 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 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 10 pF higher.
- Device is designed to meet balance requirements of GTS 8700 and GR 974.

#### Surge Ratings

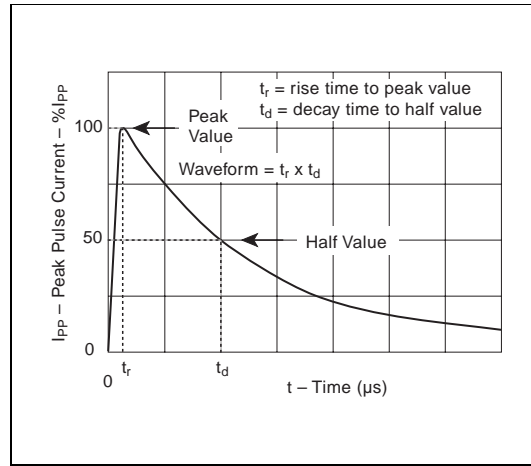
Series	I <sub>PP</sub> 2x10 $\mu$ s Amps	I <sub>PP</sub> 8x20 $\mu$ s Amps	I <sub>PP</sub> 10x160 $\mu$ s Amps	I <sub>PP</sub> 10x560 $\mu$ s Amps	I <sub>PP</sub> 10x1000 $\mu$ s Amps	I <sub>TSM</sub> 60 Hz Amps	di/dt Amps/ $\mu$ s
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500
C	500	400	200	150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

Thermal Considerations

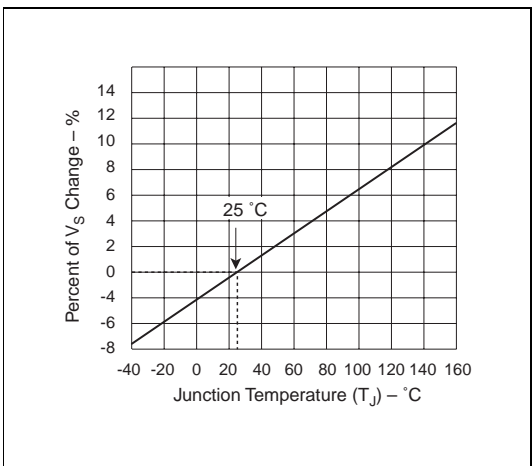
Package	Symbol	Parameter	Value	Unit
	$T_J$	Operating Junction Temperature Range	-40 to +125	$^{\circ}\text{C}$
	$T_S$	Storage Temperature Range	-65 to +150	$^{\circ}\text{C}$
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	60	$^{\circ}\text{C/W}$



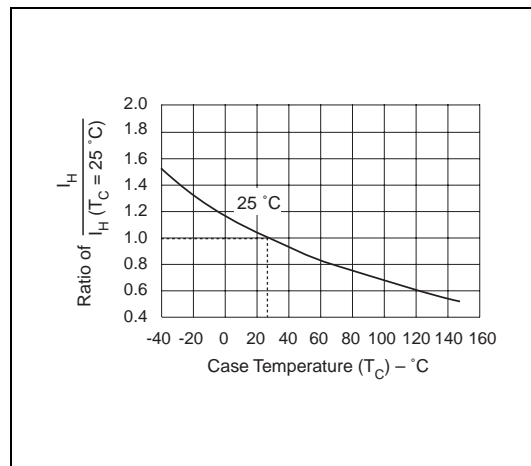
V-I Characteristics



$t_r \times t_d$  Pulse Wave-form



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets