# Four-port Longitudinal Two-chip Protector

This hybrid Single In-line Package (SIP) protects four twisted pairs from overcurrent and overvoltage conditions. Comprised of eight 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**

	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts	V <sub>DRM</sub> Volts	V <sub>S</sub> Volts						C <sub>O</sub> pF
Part Number *	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		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	Pins 2-3, 3-4
P0602Z_	25	40	50	80	4	5	800	2.2	50	110
P1402Z_	58	77	116	154	4	5	800	2.2	150	50
P1602Z_	65	95	130	190	4	5	800	2.2	150	50
P2202Z_	90	130	180	260	4	5	800	2.2	150	40
P2702Z_	120	160	240	320	4	5	800	2.2	150	40
P3002Z_	140	180	280	360	4	5	800	2.2	150	40
P3602Z_	160	220	320	440	4	5	800	2.2	150	40
P4202Z_	190	250	380	500	4	5	800	2.2	150	30
P4802Z_	220	300	440	600	4	5	800	2.2	150	30
P6002Z_	275	350	550	700	4	5	800	2.2	150	30

<sup>\*</sup> For individual "ZA," "ZB," and "ZC" 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.
- $\ensuremath{\mathsf{I}_{\mathsf{PP}}}$  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<sub>S</sub> 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 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 2x higher.
- Device is designed to meet balance requirements of GTS 8700 and GR 974.
- Lower capacitance MC versions may be available. Contact factory for further information.

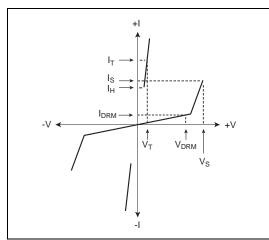
## Surge Ratings

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	l <sub>PP</sub> 10x1000 μs Amps	I <sub>TSM</sub> 60 Hz Amps	di/dt Amps/µs
Α	150	150	90	50	45	20	500
В	250	250	150	100	80	30	500
С	500	400	200	150	100	50	500

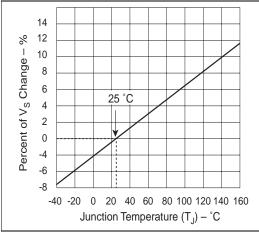
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## **Thermal Considerations**

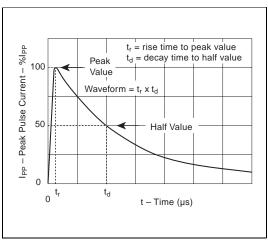
Package	Symbol	Parameter	Value	Unit
SIP	TJ	Operating Junction Temperature Range	-40 to +150	°C
00 00 00 00	Ts	Storage Temperature Range	-65 to +150	°C
• • • • • • • • • • • • • • • • • • • •	$R_{ heta JA}$	Thermal Resistance: Junction to Ambient	90	°C/W



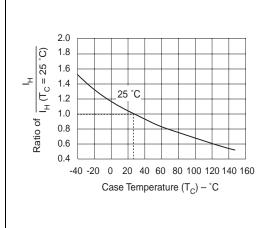
V-I Characteristics



Normalized V<sub>S</sub> Change versus Junction Temperature



 $t_{\rm r} \ x \ t_{\rm d}$  Pulse Waveform



Normalized DC Holding Current versus Case Temperature

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