



# THE DATASHEET OF P3002SBRP



## Ethernet/10BaseT/100BaseT/1000BaseT Protector



The DO-214AA *SIDACTor* Ethernet protection series is intended for applications sensitive to load values. Typically, high speed connections require a lower capacitance.  $C_O$  values are 40% lower than standard devices.

*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	$V_T$ Volts	$I_{DRM}$ $\mu$ Amps	$I_S$ mAmps	$I_T$ Amps	$I_H$ mAmps	$C_O$ pF
P0220S_	15	32	4	5	800	2.2	50	50
P0642S_**	58	77	4	5	800	2.2	120	25
P0722S_**	65	88	4	5	800	2.2	120	25
P0902S_**	75	98	4	5	800	2.2	120	25
P1102S_**	90	130	4	5	800	2.2	120	20
P1302S_	120	160	4	5	800	2.2	150	20
P1402S_	140	180	4	5	800	2.2	120	20
P1502S_	140	180	4	5	800	2.2	150	20
P1802S_	170	220	4	5	800	2.2	150	15
P2302S_	190	260	4	5	800	2.2	150	15
P2602S_	220	300	4	5	800	2.2	150	15
P3002S_	280	360	4	5	800	2.2	120	15
P3502S_	320	400	4	5	800	2.2	150	15
P4802S_	440	600	4	5	800	2.2	120	15

\* For surge ratings, see table below.

\*\* Contact factory for release date.

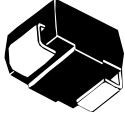
#### General Notes:

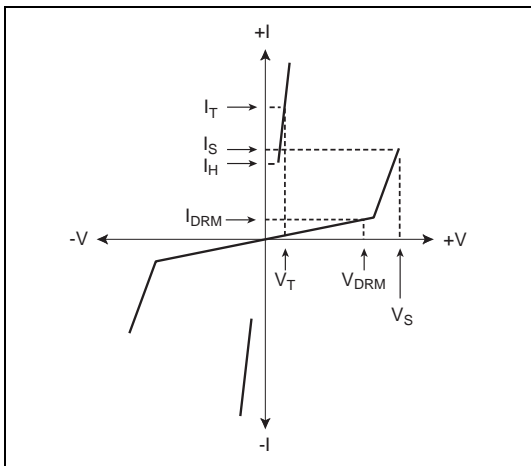
- All measurements are made at an ambient temperature of 25 °C.  $I_{PP}$  applies to -40 °C through +85 °C temperature range.
- $I_{PP}$  is a repetitive surge rating and is guaranteed for the life of the product.
- Listed *SIDACTor* devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- $V_{DRM}$  is measured at  $I_{DRM}$ .
- $V_S$  is measured at 100 V/ $\mu$ s.
- Special voltage ( $V_S$  and  $V_{DRM}$ ) and holding current ( $I_H$ ) requirements are available upon request.
- Off-state capacitance ( $C_O$ ) is measured at 1 MHz with a 2 V bias.

### Surge Ratings

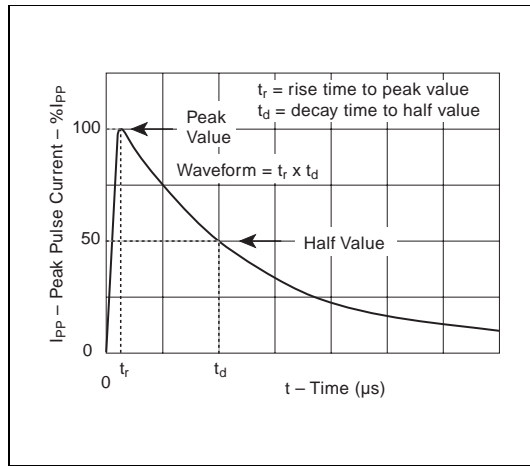
Series	$I_{PP}$ 2x10 $\mu$ s Amps	$I_{PP}$ 8x20 $\mu$ s Amps	$I_{PP}$ 10x160 $\mu$ s Amps	$I_{PP}$ 10x560 $\mu$ s Amps	$I_{PP}$ 10x1000 $\mu$ s Amps	$I_{TSM}$ 60 Hz Amps	di/dt Amps/ $\mu$ s
A	150	150	90	50	45	20	500
B	250	250	150	100	80	30	500

Thermal Considerations

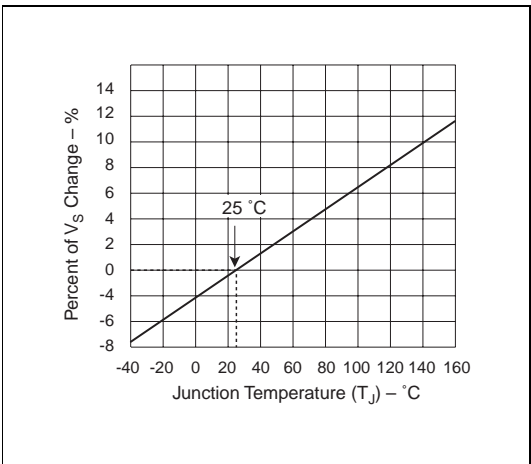
Package	Symbol	Parameter	Value	Unit
	$T_J$	Operating Junction Temperature Range	-40 to +150	°C
	$T_S$	Storage Temperature Range	-65 to +150	°C
	$R_{\theta JA}$	Thermal Resistance: Junction to Ambient	90	°C/W



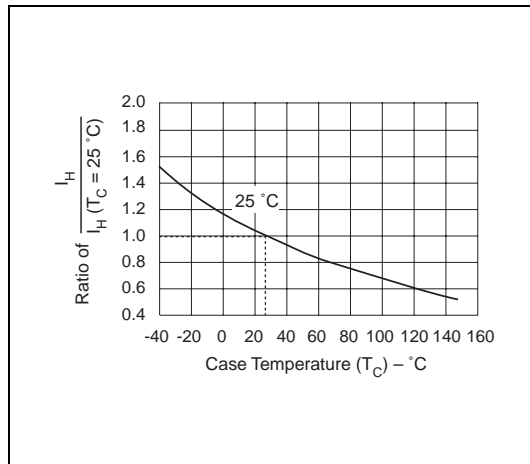
V-I Characteristics



$t_r \times t_d$  Pulse Wave-form



Normalized  $V_S$  Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets

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