



# THE DATASHEET OF P2302SA



## Broadband Optimized™ SIDACTor® Device



The DO-214AA SIDACTor Broadband Optimized protection devices are 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 enable equipment to comply with 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
P0642S_L	58	77	4	5	800	2.2	120
P0722S_L	65	88	4	5	800	2.2	120
P0902S_L	75	98	4	5	800	2.2	120
P1102S_L	90	130	4	5	800	2.2	120
P1302S_L	120	160	4	5	800	2.2	120
P1502S_L	140	180	4	5	800	2.2	120
P1802S_L	170	220	4	5	800	2.2	120
P2302S_L	190	260	4	5	800	2.2	120
P2602S_L	220	300	4	5	800	2.2	120
P3002S_L	280	360	4	5	800	2.2	120
P3502S_L	320	400	4	5	800	2.2	120
P4202S_L	190	250	8	5	800	2.2	120
P4802S_L	440	600	4	5	800	2.2	120
P6002S_L	275	350	8	5	800	2.2	120

\* "L" in part number indicates RoHS compliance. For non-RoHS compliant device, delete "L" from part number.  
For surge ratings, see table below.

#### General Notes:

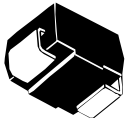
- All measurements are made at an ambient temperature of 25 °C.  $I_{PP}$  applies to -40 °C through +85 °C temperature range.
- $I_{PP}$  is a repetitive surge rating and is guaranteed for the life of the product.
- Listed SIDACTor devices are bi-directional. All electrical parameters and surge ratings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

### Surge Ratings in Amps

Series	$I_{PP}$									$I_{TSM}$ 50 / 60 Hz Amps	di/dt Amps/ $\mu$ s
	0.2x310 *	2x10 *	8x20 *	10x160 *	10x560 *	5x320 *	10x360 *	10x1000 *	5x310 *		
	0.5x700 **	2x10 **	1.2x50 **	10x160 **	10x560 **	9x720 **	10x360 **	10x1000 **	10x700 **		
	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps	Amps
A	20	150	150	90	50	75	75	45	75	20	500
B	25	250	250	150	100	100	125	80	100	30	500

\* Current waveform in  $\mu$ s  
\*\* Voltage waveform in  $\mu$ s

**Thermal Considerations**

Package	Symbol	Parameter	Value	Unit
	T <sub>J</sub>	Operating Junction Temperature Range	-40 to +150	°C
	T <sub>S</sub>	Storage Temperature Range	-65 to +150	°C
	R <sub>θJA</sub>	Thermal Resistance: Junction to Ambient	90	°C/W

**Capacitance Values**

Part Number *	pF	
	MIN	MAX
P0642S[A/B]L	25	45
P0722S[A/B]L	20	45
P0902S[A/B]L	20	40
P1102S[A/B]L	15	35
P1302S[A/B]L	15	35
P1502S[A/B]L	15	30
P1802S[A/B]L	10	30
P2302S[A/B]L	10	25
P2602S[A/B]L	10	25
P3002S[A/B]L	10	25
P3502S[A/B]L	10	20
P4202S[A/B]L	10	20
P4802S[A/B]L	5	20
P6002S[A/B]L	5	20

\* [A/B] in part number indicates that values are for both A and B surge ratings.  
 Note: Off-state capacitance (C<sub>O</sub>) is measured at 1 MHz with a 2 V bias.

SIDACTor Devices

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