



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## MicroCapacitance (MC) SA *SIDACtor*<sup>®</sup> Device



These DO-214AA SAMC *SIDACtor* devices are intended for applications sensitive to load values. Typically, high speed connections, such as Ethernet, xDSL, and T1/E1, require a lower capacitance.  $C_O$  values for the MicroCapacitance device are 40% lower than a standard SA part.

This SAMC *SIDACtor* series enables 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
P0080SAMCL	6	25	4	5	800	2.2	50
P0220SAMCL	15	32	4	5	800	2.2	50
P0300SAMCL	25	40	4	5	800	2.2	50

\* "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.

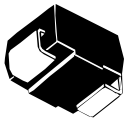
### Surge Ratings in Amps

Series	$I_{PP}$									$I_{TSM}$ 50 / 60 Hz	di/dt
	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/ $\mu$ s
A	20	150	150	90	50	75	75	45	75	20	500

\* Current waveform in  $\mu$ s

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

**Thermal Considerations**

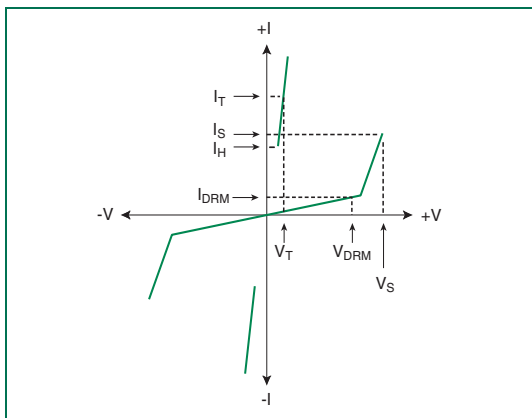
Package	Symbol	Parameter	Value	Unit
	T <sub>J</sub>	Operating Junction Temperature Range	-40 to +150	°C
	T <sub>S</sub>	Storage Temperature Range	-65 to +150	°C
	R <sub>θJA</sub>	Thermal Resistance: Junction to Ambient	90	°C/W

**Capacitance Values**

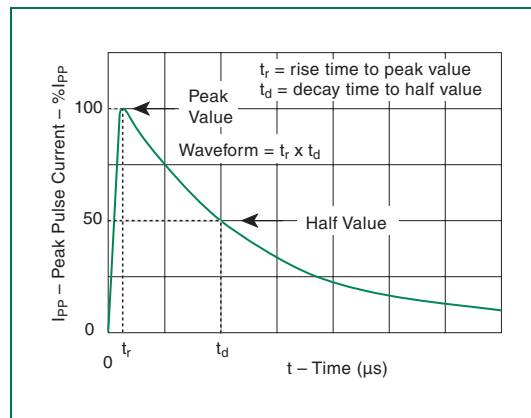
Part Number	pF	
	MIN	MAX
P0080SAMCL	25	55
P0220SAMCL	25	50
P0300SAMCL	15	35

Note: Off-state capacitance (C<sub>O</sub>) is measured at 1 MHz with a 2 V bias.

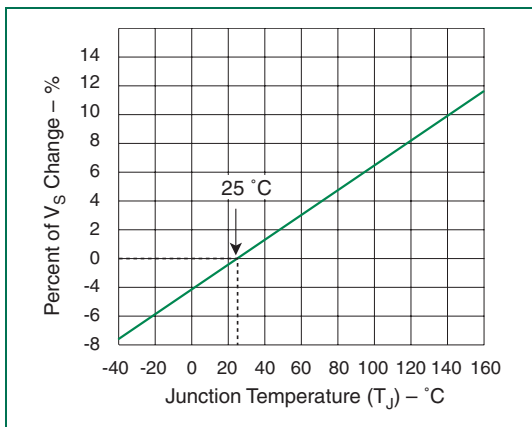
SIDACtor Devices



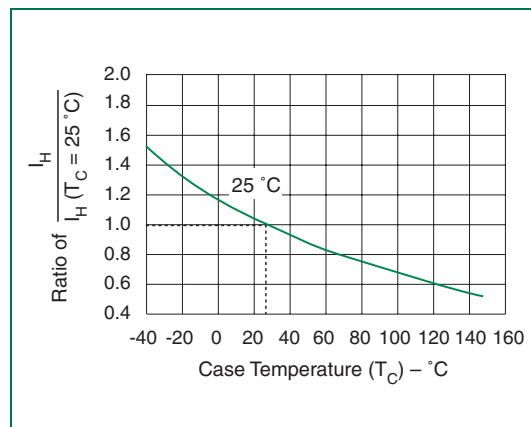
V-I Characteristics



t<sub>r</sub> x t<sub>d</sub> Pulse Waveform



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



Normalized DC Holding Current versus Case Temperature