

MicroCapacitance (MC) SA SIDACtor Device



The DO-214AA SA MC SIDACtor series is intended for applications sensitive to load values. Typically, high speed connections require a lower capacitance. C_O values for the MicroCapacitance device are 40% lower than a standard SA part.

This MC SIDACtor series is 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} μ Amps | I_S mAmps | I_T Amps | I_H mAmps | C_O pF |
|---------------|-----------------|-------------|-------------|----------------------|-------------|------------|-------------|----------|
| P0080SA MC | 6 | 25 | 4 | 5 | 800 | 2.2 | 50 | 45 |
| P0300SA MC | 25 | 40 | 4 | 5 | 800 | 2.2 | 50 | 25 |

* For surge ratings, see table below.

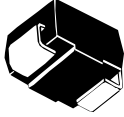
General Notes:

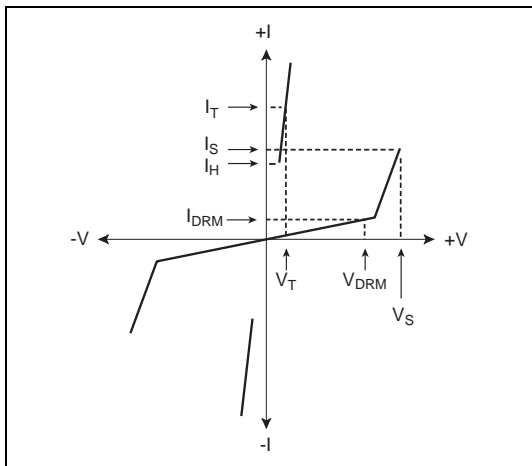
- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- I_{PP} is a repetitive surge rating and is guaranteed for the life of the product.
- Listed SIDACtor devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM} .
- V_S is measured at 100 V/ μ 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

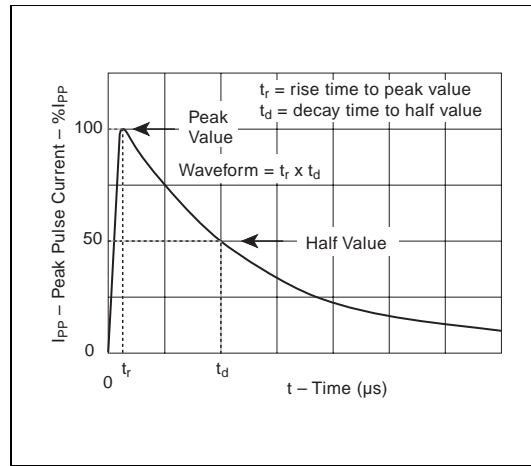
| Series | I_{PP} 2x10 μ s Amps | I_{PP} 8x20 μ s Amps | I_{PP} 10x160 μ s Amps | I_{PP} 10x560 μ s Amps | I_{PP} 10x1000 μ s Amps | I_{TSM} 60 Hz Amps | di/dt Amps/ μ s |
|--------|----------------------------|----------------------------|------------------------------|------------------------------|-------------------------------|----------------------|---------------------|
| A | 150 | 150 | 90 | 50 | 45 | 20 | 500 |

Thermal Considerations

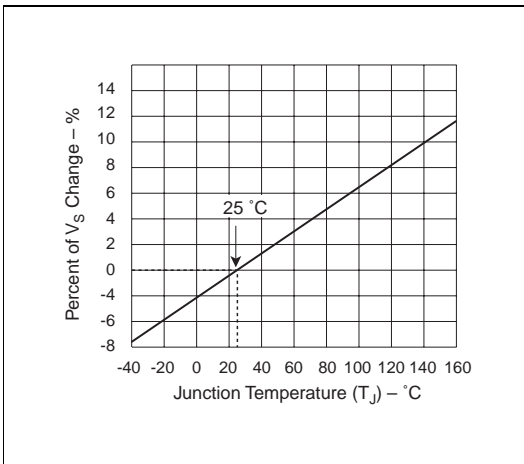
| Package | Symbol | Parameter | Value | Unit |
|---|-----------------|---|-------------|-----------------------------|
|  | T_J | Operating Junction Temperature Range | -40 to +150 | $^{\circ}\text{C}$ |
| | T_S | Storage Temperature Range | -65 to +150 | $^{\circ}\text{C}$ |
| | $R_{\theta JA}$ | Thermal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



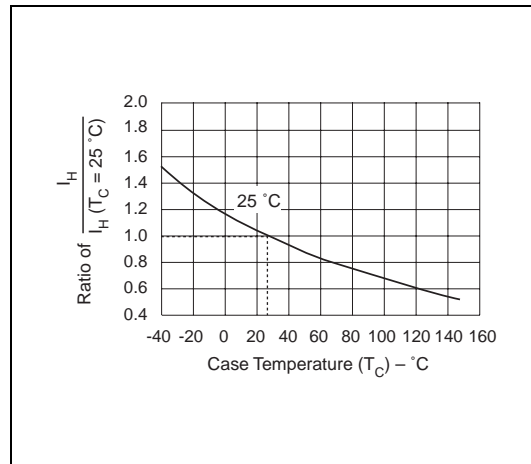
V-I Characteristics



$t_r \times t_d$ Pulse Wave-form



Normalized V_S Change versus Junction Temperature



Normalized DC Holding Current versus Case Temperature

Data Sheets