LCAS Asymmetrical Discrete Device



These DO-214AA *SIDACtor* devices are intended for LCAS (Line Circuit Access Switch) applications that require asymmetrical protection in discrete (individual) packages. They enable the protected equipment to meet various regulatory requirements including GR 1089, ITU K.20, K.21, K.45, IEG 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} μAmps | I _S mAmps | I _T Amps | I _H mAmps | C _O pF |
|------------------|---------------------------|-------------------------|-------------------------|---------------------------|-------------------------|------------------------|-------------------------|----------------------|
| P1200S_ | 100 | 130 | 4 | 5 | 800 | 2.2 | 120 | 40 |
| P2000S_ | 180 | 220 | 4 | 5 | 800 | 2.2 | 120 | 30 |
| P2500S_ | 230 | 290 | 4 | 5 | 800 | 2.2 | 120 | 30 |

^{*} For individual "SA", "SB", and "SC" surge ratings, see table below.

General Notes

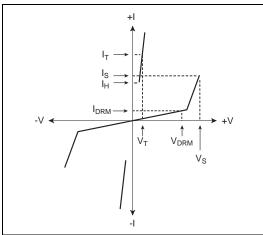
- All measurements are made at an ambient temperature of 25 °C. IPP applies to -40 °C through +85 °C temperature range.
- IPP is a repetitive surge rating and is guaranteed for the life of the product.
- · Listed SIDACtor devices are bi-directional. All electrical parameters and surge ratings apply to forward and reverse polarities.
- V_{DRM} is measured at I_{DRM}.
- V_S is measured at 100 V/µs.
- Special voltage (V_S and V_{DRM}) and holding current (I_H) requirements are available upon request.
- Off-state capacitance (C_O) is measured between Pins 1-2 and 3-2 at 1 MHz with a 2 V bias and is a typical value for "SA" and "SB" product. "SC" capacitance is approximately 10 pF higher.

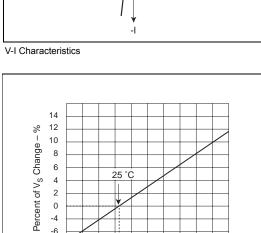
Surge Ratings

| Series | I _{PP} 2x10 μs Amps | I _{PP} 8x20 μs Amps | I _{PP} 10x160 μs Amps | I _{PP} 10x560 μs Amps | I _{PP} 10x1000 μs Amps | I _{TSM} 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 |

Thermal Considerations

| Package | Symbol | Parameter | Value | Unit |
|----------|----------------|---|-------------|------|
| DO-214AA | TJ | Operating Junction Temperature Range | -40 to +125 | °C |
| | T _S | Storage Temperature Range | -65 to +150 | °C |
| | $R_{	hetaJA}$ | Thermal Resistance: Junction to Ambient | 60 | °C/W |





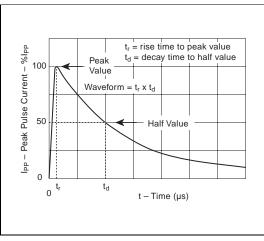
Normalized V_S Change versus Junction Temperature

-40 -20 0 20 40 60 80 100 120 140 160

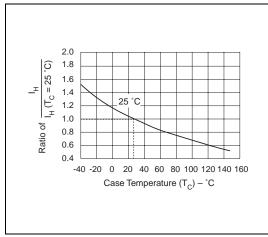
Junction Temperature $(T_J) - {}^{\circ}C$

-6

-8



t_r x t_d Pulse Wave-form



Normalized DC Holding Current versus Case Temperature