

## DESCRIPTION

The SELCxxCI Series are ultra low capacitance transient voltage suppressor arrays, designed to protect applications such as portable electronics and SMART phones. This series is rated at 350 Watts for an 8/20 $\mu$ s waveshape.

The SELCxxCI Series meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. This series offers a ultra low capacitance and low leakage current in a miniature SOD-323 package.

## FEATURES

- >350 Watts Peak Pulse Power per Line (tp=8/20 $\mu$ s)
- >Protects one I/O line (bidirectional)
- >Low clamping voltage
- >Working voltages: 3.3V, 5V, 8V, 12V, 15V, 18V,24V
- >Low leakage current

## APPLICATIONS

- >Cell Phone Handsets and Accessories
- >Microprocessor based equipment
- >Personal Digital Assistants (PDA's)
- >Notebooks, Desktops, and Servers
- >Portable Instrumentation
- >Peripherals
- >USB Interface

## IEC COMPATIBILITY

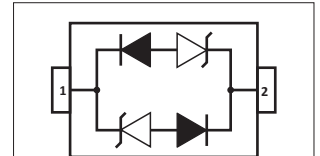
- >IEC61000-4-2 (ESD)  $\pm$ 30kV (air),  $\pm$ 30kV (contact)
- >IEC61000-4-4 (EFT) 40A (5/50ns)

## TYPICAL DEVICE CHARACTERISTICS

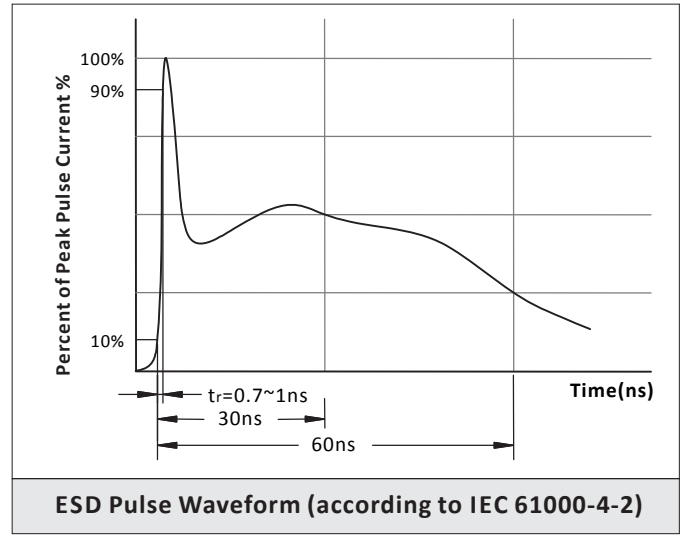
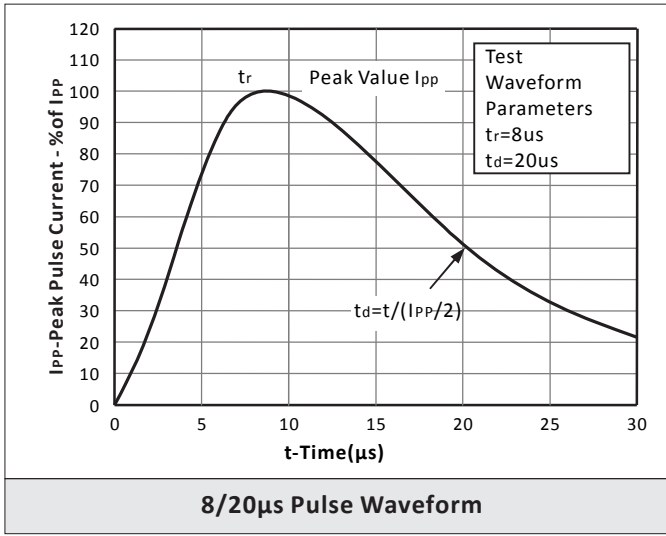
| MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED |                  |         |       |
|---|------------------|---------|-------|
| PARAMETER   | SYMBOL           | VALUE   | UNIT  |
| Peak Pulse Power (tp=8/20 $\mu$ s waveform)       | P <sub>PP</sub>  | 350     | Watts |
| Operating Temperature Range                       | T <sub>J</sub>   | -55~125 | °C    |
| Storage Temperature Range                         | T <sub>STG</sub> | -55~150 | °C    |

## ELECTRICAL CHARACTERISTICS

| ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED |                |                           |                         |                     |                         |                |    |                          |                          |
|---|----------------|---------------------------|-------------------------|---------------------|-------------------------|----------------|----|--------------------------|--------------------------|
| PART NUMBER   | DEVICE MARKING | V <sub>RWM</sub> (V) Max. | V <sub>B</sub> (V) Min. | I <sub>T</sub> (mA) | V <sub>C</sub> @1A Max. | V <sub>C</sub> |    | I <sub>R</sub> (uA) Max. | C <sub>T</sub> (pF) Typ. |
|   |                |                           |                         |                     |                         | Max.           | @A |                          |                          |
| SELC03CI  | CC             | 3.3                       | 4.0                     | 1                   | 7.5                     | 21.0           | 15 | 1                        | 1.0                      |
| SELC05CI  | AC             | 5.0                       | 6.0                     | 1                   | 9.8                     | 25.0           | 14 | 1                        | 1.0                      |
| SELC08CI  | BC             | 8.0                       | 8.5                     | 1                   | 13.4                    | 26.0           | 12 | 1                        | 1.0                      |
| SELC12CI  | DC             | 12.0                      | 13.3                    | 1                   | 19.0                    | 30.0           | 7  | 1                        | 1.0                      |
| SELC15CI  | EC             | 15.0                      | 16.7                    | 1                   | 24.0                    | 35.0           | 6  | 1                        | 1.0                      |
| SELC18CI  | FC             | 18.0                      | 20.0                    | 1                   | 27.0                    | 40.0           | 5  | 1                        | 1.0                      |
| SELC24CI  | HC             | 24.0                      | 26.7                    | 1                   | 43.0                    | 56.0           | 3  | 1                        | 1.0                      |

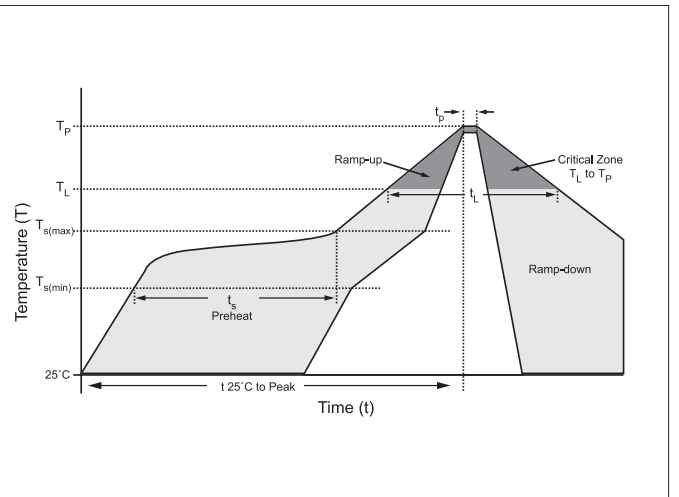

**SOD-323 PACKAGE**

**PIN CONFIGURATIONS**

**CHARACTERISTIC CURVES**



**REFLOW PROFILE**

| Reflow Condition                                  |                             | Lead-free assembly |
|---|-----------------------------|--------------------|
| Pre Heat  | Temperature Min (Ts(min))   | 150°C              |
|   | Temperature Max (Ts(max))   | 200°C              |
|   | Time (min to max) (ts)      | 60 – 180 secs      |
| Average ramp up rate (Liquidus Temp (TL) to peak) |                             | 3°C/second max     |
| Ts(max)to TL - Ramp-up Rate                       |                             | 3°C/second max     |
| Reflow  | Temperature (TL) (Liquidus) | 217°C              |
|   | Time (min to max) (tl)      | 60 – 150 seconds   |
| Peak Temperature (Tp)                             |                             | 260°C              |
| Time within 5°C of actual peak Temperature (tp)   |                             | 20 – 40 seconds    |
| Ramp-down Rate                                    |                             | 6°C/second max     |
| Time 25°C to peak Temperature (Tp)                |                             | 8 minutes Max.     |
| Do not exceed                                     |                             | 260°C              |



**SOD-323 PACKAGE INFORMATION**

| OUTLINEDIMENSIONS |             |      |        |       |
|-------------------|-------------|------|--------|-------|
| DIM               | MILLIMETERS |      | INCHES |       |
|                   | MIN         | MAX  | MIN    | MAX   |
| A                 | 1.60        | 1.90 | 0.063  | 0.075 |
| B                 | 1.15        | 1.45 | 0.045  | 0.057 |
| C                 | 2.39        | 2.70 | 0.094  | 0.106 |
| D                 | 0.80        | 1.10 | 0.031  | 0.043 |
| E                 | 0.25        | 0.40 | 0.010  | 0.016 |
| F                 | 0.10        | 0.20 | 0.004  | 0.008 |
| H                 | -           | 0.10 | -      | 0.004 |
| L                 | 0.20        | -    | 0.008  | -     |

**RECOMMENDED PAD LAYOUT DIMENSION**

| PAD LAYOUT DIMENSIONS |             |      |        |       |
|-----------------------|-------------|------|--------|-------|
| DIM                   | MILLIMETERS |      | INCHES |       |
|                       | MIN         | MAX  | MIN    | MAX   |
| A                     | 2.87        | 3.12 | 0.113  | 0.123 |
| B                     | 0.66        | 0.91 | 0.026  | 0.036 |
| C                     | 0.66        | 0.91 | 0.026  | 0.036 |

**ORDERING INFORMATION**

| Part Number | Component Package | QTY/Reel | Reel Size |
|-------------|-------------------|----------|-----------|
| SELCXXCI    | SOD-323           | 3000PCS  | 7"        |

## **CONTACT US**

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