

DESCRIPTION

The SESMXX series are transient voltage suppressor (TVS) arrays, designed for power or data line applications that provide protection against ESD, tertiary lightning and switching transients. This series offers low clamping voltage for the protection of sensitive interfaces.

FEATURES

- > 350 Watts peak pulse power per Line($t_p=8/20\mu s$)
- > Protects one bidirectional line or two unidirectional lines
- > Low clamping voltage
- > RoHS Compliant

APPLICATIONS

- > Cellular Handsets and Accessories
- > Portable Electronics
- > Industrial Controls
- > Set-Top Box
- > Instrumentation
- > Servers, Notebook, and Desktop PC

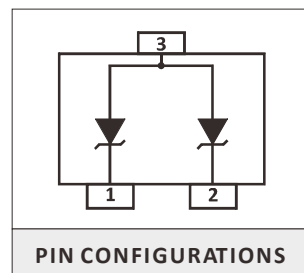
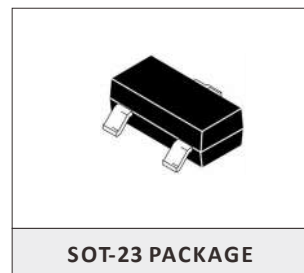
IEC COMPATIBILITY

- > IEC61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- > IEC61000-4-4 (EFT) 40A (5/50ns)
- > IEC61000-4-5 (Lightning) 12A (8/20 μs)

TYPICAL DEVICE CHARACTERISTICS

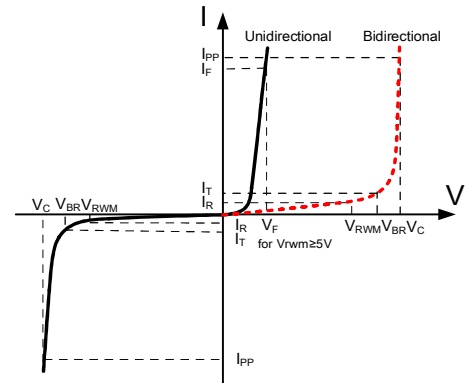
| MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED | | | |
|---|------------------|--------------|-----------|
| PARAMETER | SYMBOL | VALUE | UNIT |
| Peak Pulse Power ($t_p=8/20\mu s$ waveform) | P _{PP} | 350 | W μs |
| Lead Soldering Temperature | T _L | 260(10 sec.) | °C |
| Operating Temperature Range | T _J | -55~125 | °C |
| Storage Temperature Range | T _{STG} | -55~150 | °C |

| ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED | | | | | | | | | |
|---|----------------|---------------------------|--------------------------|---------------------|-------------------------|----------------|----|--------------------------|--------------------------|
| PART NUMBER | DEVICE MARKING | V _{RWM} (V) Max. | V _{BR} (V) Min. | I _T (mA) | V _c @1A Max. | V _c | | I _R (uA) Max. | C _T (pF) Max. |
| | | | | | | Max. | @A | | |
| SESM03 | M03 | 3.3 | 4.0 | 1 | 6.5 | 15.0 | 25 | 100 | 400 |
| SESM05 | M05 | 5.0 | 6.0 | 1 | 9.8 | 16.0 | 24 | 10 | 300 |
| SESM08 | M08 | 8.0 | 8.5 | 1 | 13.4 | 19.0 | 18 | 5 | 250 |
| SESM12 | M12 | 12.0 | 13.3 | 1 | 19.0 | 24.0 | 13 | 1 | 150 |
| SESM15 | M15 | 15.0 | 16.7 | 1 | 24.0 | 28.0 | 6 | 1 | 100 |
| SESM24 | M24 | 24.0 | 26.7 | 1 | 43.0 | 52.0 | 6 | 1 | 90 |
| SESM36 | M36 | 36.0 | 40.0 | 1 | 51 | 75.0 | 4 | 1 | 60 |



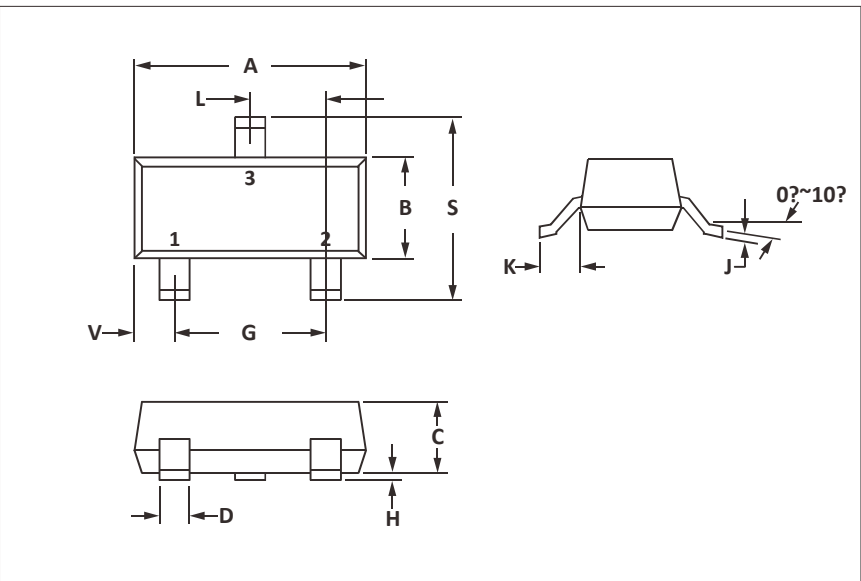
ELECTRICAL PARAMETERS (T=25°C)

| Symbol | Parameter |
|-----------|------------------------------------|
| I_{PP} | Reverse Peak Pulse Current |
| V_C | Clamping Voltage@ I_{PP} |
| V_{RWM} | Working Peak Reverse Voltage |
| I_R | Reverse Leakage Current@ V_{RWM} |
| V_{BR} | Breakdown Voltage@ I_T |
| I_T | Test Current |
| I_F | Forward Current |
| V_F | Forward Voltage@ I_F |

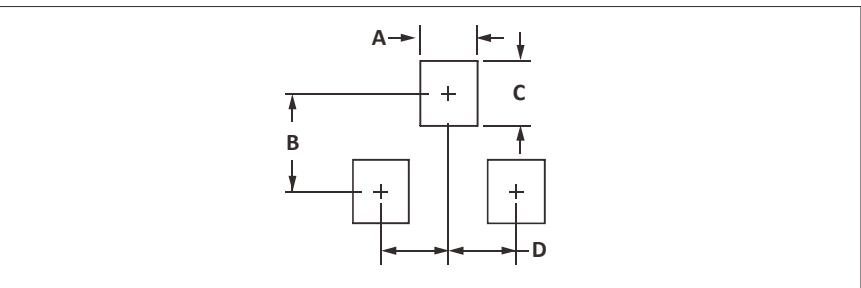


SOT-23 PACKAGE INFORMATION

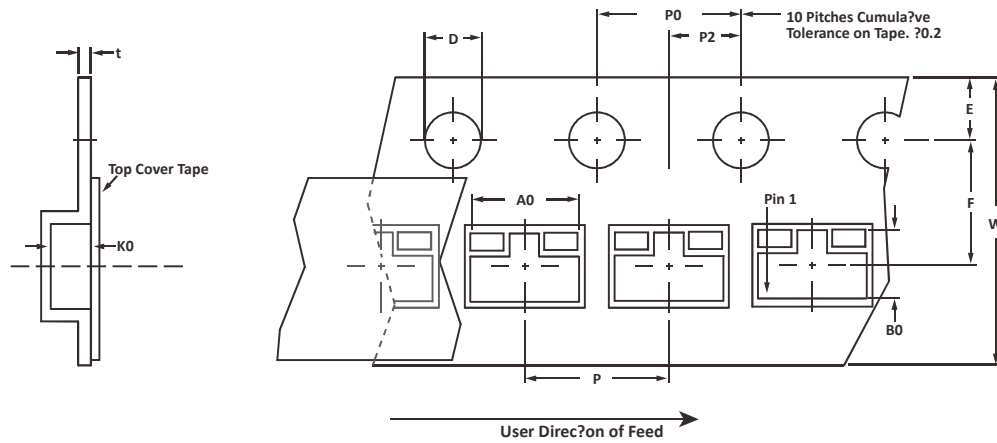
| OUTLINE DIMENSIONS | | | | |
|--------------------|-------------|-------|--------|-------|
| DIM | MILLIMETERS | | INCHES | |
| | MIN | MAX | MIN | MAX |
| A | 2.80 | 3.04 | 0.110 | 0.120 |
| B | 1.20 | 1.40 | 0.047 | 0.055 |
| C | 0.89 | 1.11 | 0.035 | 0.044 |
| D | 0.37 | 0.50 | 0.015 | 0.020 |
| G | 1.78 | 2.04 | 0.070 | 0.081 |
| H | 0.013 | 0.100 | 0.001 | 0.004 |
| J | 0.085 | 0.177 | 0.003 | 0.007 |
| K | 0.45 | 0.60 | 0.018 | 0.024 |
| L | 0.89 | 1.02 | 0.035 | 0.040 |
| S | 2.10 | 2.50 | 0.083 | 0.098 |
| V | 0.45 | 0.60 | 0.018 | 0.024 |



| PAD LAYOUT DIMENSIONS | | | | |
|-----------------------|-------------|------|--------|-------|
| DIM | MILLIMETERS | | INCHES | |
| | MIN | MAX | MIN | MAX |
| A | 0.71 | 0.97 | 0.028 | 0.038 |
| B | 1.88 | 2.13 | 0.074 | 0.084 |
| C | 0.71 | 0.97 | 0.028 | 0.038 |
| D | 0.81 | 1.07 | 0.032 | 0.042 |



TAPE AND REEL



| SPECIFICATIONS | | | | | | | | | | | | |
|----------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| REEL DIA. | TAPE WIDTH | A0 | B0 | K0 | D | E | F | W | P0 | P2 | P | tmax |
| 178mm (7") | 8mm | 3.15 ± 0.10 | 2.77 ± 0.10 | 1.30 ± 0.10 | 1.50 ± 0.10 | 1.75 ± 0.10 | 3.50 ± 0.05 | 8.00 ± 0.30 | 4.00 ± 0.10 | 2.00 ± 0.05 | 4.00 ± 0.10 | 0.228 |

NOTES

1. Dimensions are in millimeters.
2. Surface mount product is taped and reeled in accordance with EIA-481.
3. Suffix - T7 = 7" Reel - 3,000 pieces per 8mm tape.

| ORDERING INFORMATION | | | | | |
|---|------------------|-------------|----------|-----------|----------|
| BASE PART NUMBER (xx = Voltage) | LEAD FREE SUFFIX | TAPE SUFFIX | QTY/REEL | REEL SIZE | TUBE QTY |
| SESMXX | -LF | -T7 | 3,000 | 7" | n/a |
| This device is only available in a Lead-Free configuration. | | | | | |

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