

**DESCRIPTION**

The SESM712 is an asymmetrical transient voltage suppressor (TVS) array, designed specifically for RS-485 applications. This device provides protection against ESD, tertiary lightning and switching transients.

The SESM712 has a peak pulse power of 400 Watts for an 8/20µs waveshape and is available in SOT-23 package configuration. This device meets the IEC 61000-4-2, 61000-4-4 and IEC 61000-4-5 requirements.



SOT-23 PACKAGE

**FEATURES**

- >400 Watts peak pulse power per Line (tp=8/20µs)
- >Protects two +12V to -7V lines
- >Low clamping voltage
- >RoHS Compliant
- >Moisture sensitivity level: Level 1
- >Weight 8 Milligrams (Approximate)

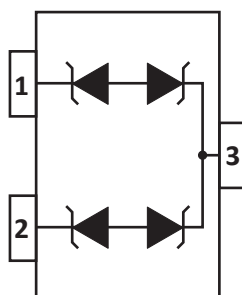
**APPLICATIONS**

- >Protection of RS-485 transceivers with extended common-mode range
- >Security systems
- >Automatic Teller Machines
- >HFC systems
- >Networks

**IEC COMPATIBILITY**

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

**PIN CONFIGURATIONS**



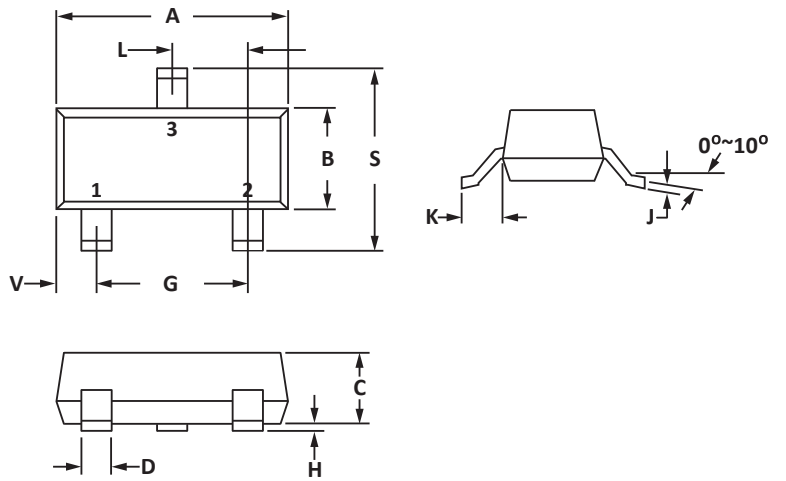
**TYPICAL DEVICE CHARACTERISTICS**

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED			
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20μs waveform)	PPP	400	Watts
Lead Soldering Temperature	T <sub>L</sub>	260(10 sec.)	°C
Operating Temperature Range	T <sub>J</sub>	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C

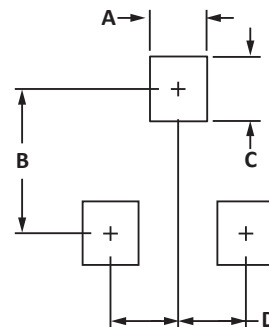
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED									
PART NUMBER	DEVICE MARKING	V <sub>RWM</sub> (V) Max.	V <sub>B</sub> (V) Min.	I <sub>T</sub> (mA)	V <sub>C</sub> @5A Max.	V <sub>C</sub>		I <sub>R</sub> (uA) Max.	C <sub>T</sub> (pF) Max.
						Max.	@A		
Pin 3-1 & Pin 3-2	M72	7.0	7.5	1	10	12	17	10	55
Pin 1-3 & Pin 2-3	M72	12.0	13.3	1	20	26	17	1	55

**SOT-23 PACKAGE INFORMATION**

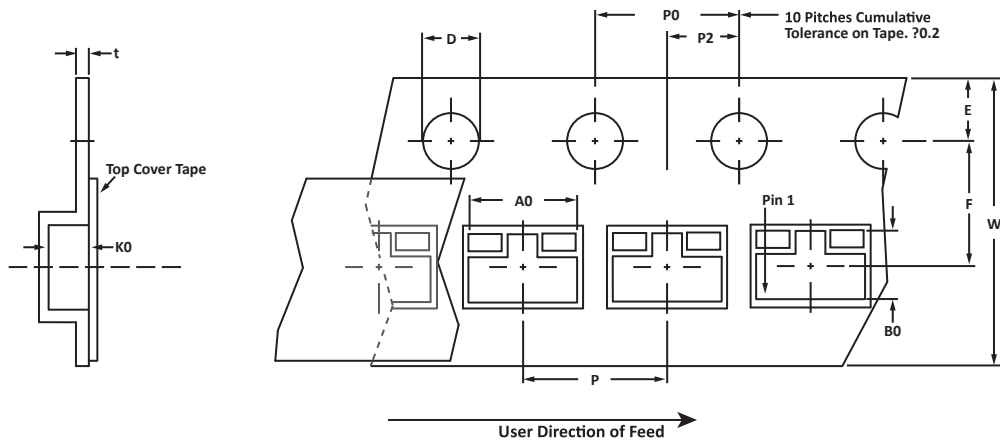
OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.89	1.11	0.035	0.044
D	0.37	0.50	0.015	0.020
G	1.78	2.04	0.070	0.081
H	0.013	0.100	0.001	0.004
J	0.085	0.177	0.003	0.007
K	0.45	0.60	0.018	0.024
L	0.89	1.02	0.035	0.040
S	2.10	2.50	0.083	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
SESM712	-LF	-T7	3,000	7"	n/a

This device is only available in a Lead-Free configuration.

## **CONTACT US**

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