

DESCRIPTION

The SESMCxx is a standard capacitance transient voltage suppressor array, designed to protect applications such as portable electronics and SMART phones. It is rated at 350 Watts for an 8/20 μ s waveshape.

The SESMCxx 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. The SESMCxx offers a low leakage current in a miniature SOT-23 package.

FEATURES

- >350 Watts Peak Pulse Power per Line (tp=8/20 μ s)
- >Ultra low leakage: μ A level
- >Operating voltage: 3.3V,5V,8V,12V,15V,18V,20V,24V,36V
- >Low clamping voltage
- >Protects two bidirectional lines

APPLICATIONS

- >RS-232,RS-422&RS-423 Data Lines
- >Audio/Video Inputs
- >Wireless Network Systems
- >Microprocessor Based Equipment
- >Medical Sensors
- >Notebook Computers

IEC COMPATIBILITY

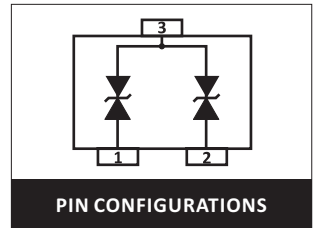
- >IEC61000-4-2 (ESD) \pm 15kV (air), \pm 8kV (contact)
- >IEC61000-4-4 (EFT) 40A (5/50ns)

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20 μ s waveform)	PPP	350	Watts
Operating Temperature Range	TJ	-55~125	°C
Storage Temperature Range	TSTG	-55~150	°C

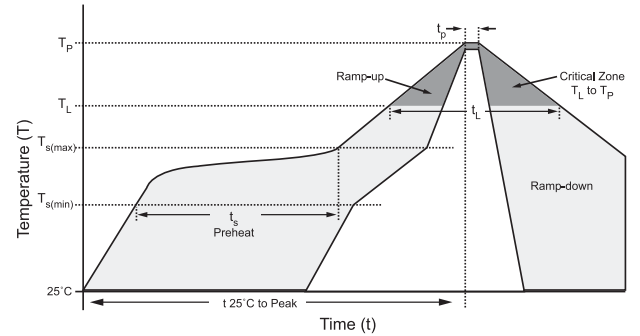
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED

PART NUMBER	DEVICE MARKING	V _{RWM}	V _{BR}	I _T	V _C @1A	V _C		I _R	C _T
		(V) Max.	(V) Min.	(mA)	Max.	Max.	@A	(μ A) Max.	(pF) Max.
SESMC03	C03	3.3	4.0	1	7.5	13.0	20.0	40	450
SESMC05	C05	5.0	6.0	1	9.8	18.0	17.0	10	200
SESMC08	C08	8.0	8.5	1	13.4	24.0	15.0	2	120
SESMC12	C12	12.0	13.3	1	19.0	32.0	11.0	1	75
SESMC15	C15	15.0	16.7	1	24.0	38.0	10.0	1	68
SESMC18	C18	18.0	20.0	1	29.0	45.0	9.0	1	57
SESMC20	C20	20.0	22.3	1	35.0	50.0	8.0	1	52
SESMC24	C24	24.0	26.7	1	43.0	52.0	7.0	1	50
SESMC36	C36	36.0	40.0	1	60.0	75.0	5.0	1	35



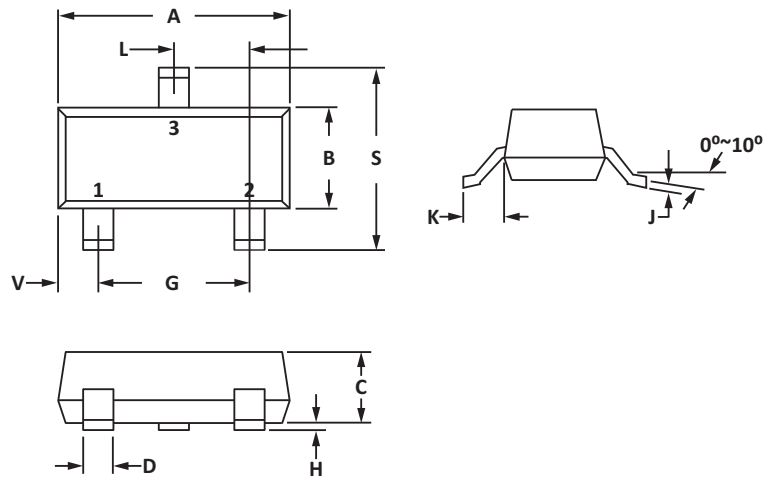
SOLDERING PARAMETERS

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



SOT-23 PACKAGE INFORMATION

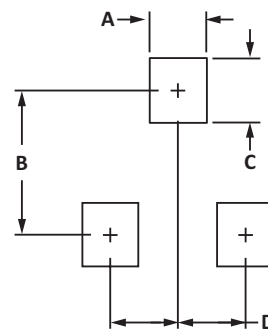
OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.89	1.11	0.035	0.044
D	0.37	0.50	0.015	0.020
G	1.78	2.04	0.070	0.081
H	0.013	0.100	0.001	0.004
J	0.085	0.180	0.003	0.007
K	0.35	0.69	0.014	0.029
L	0.89	1.02	0.035	0.040
S	2.10	2.64	0.083	0.104
V	0.45	0.60	0.018	0.024



- NOTES**
 1. Controlling dimension: inches.
 2. Dimensions are exclusive of mold flash and metal burrs.

RECOMMENDED PAD LAYOUT DIMENSION

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



- NOTES**
 1. Controlling dimension: inches.



ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SESMCxx	SOT-23	3000PCS	7"

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